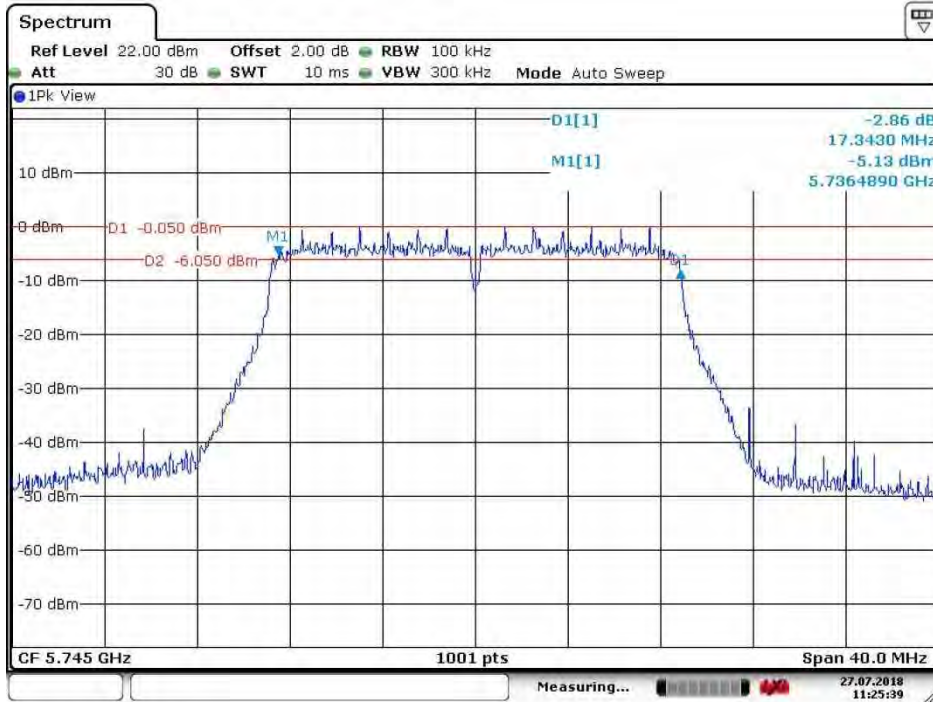
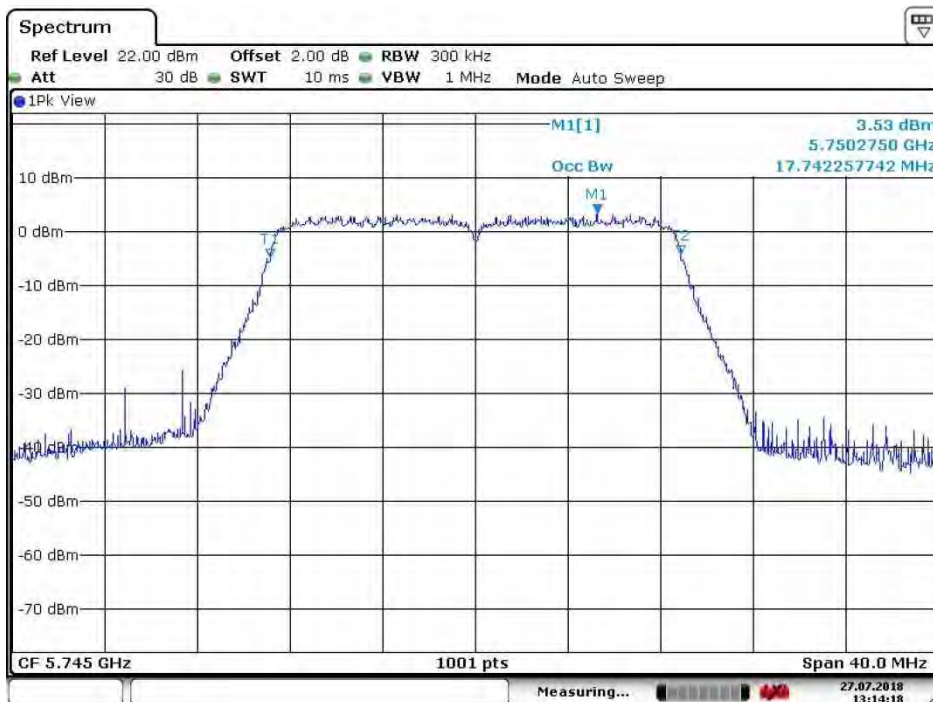




5.5.1.1.9 11AC20\_149 ANT 1



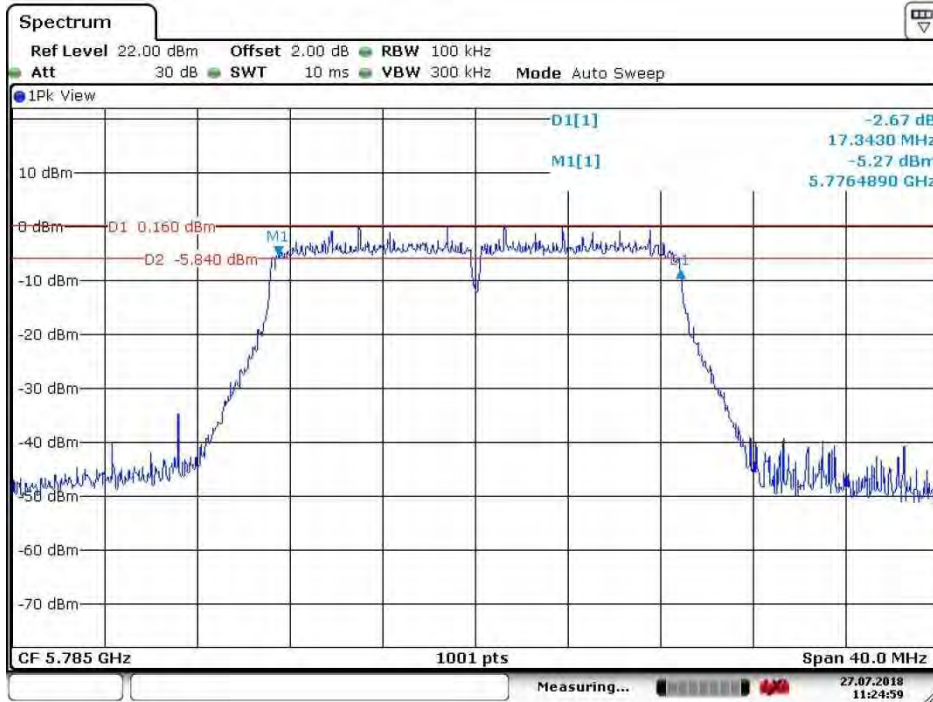
Date: 27 JUL 2018 11:25:39



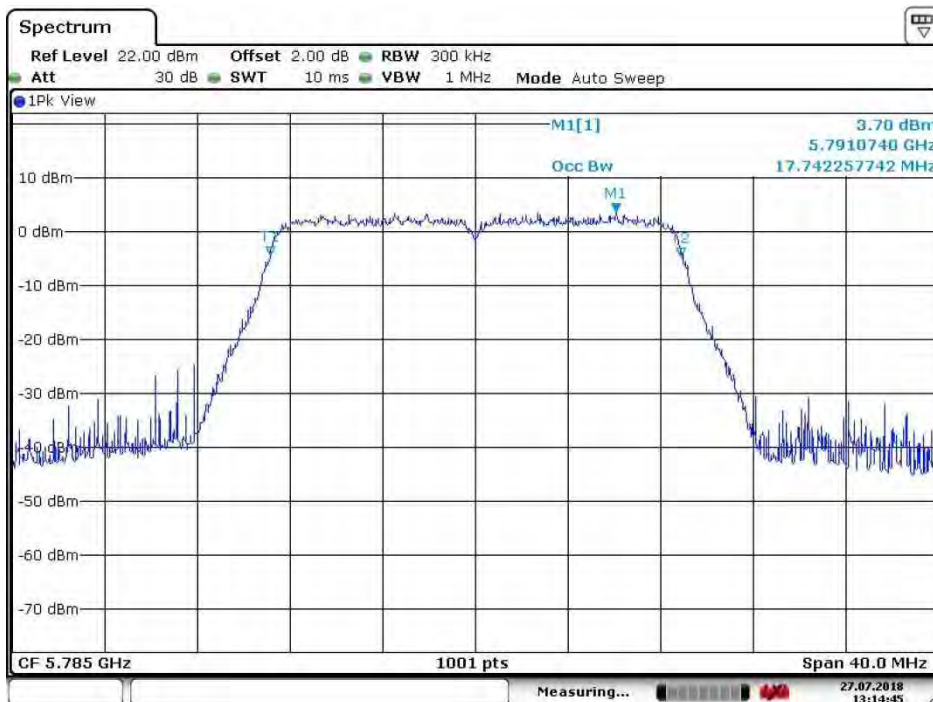
Date: 27 JUL 2018 13:14:19



5.5.1.1.10 11AC20\_157 ANT 1



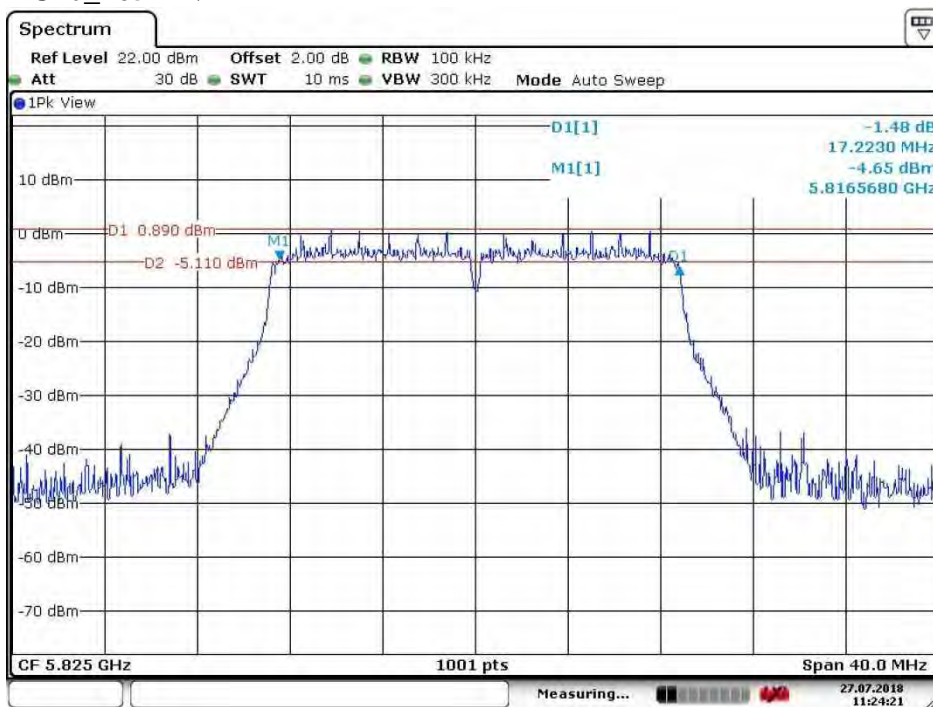
Date: 27 JUL 2018 11:24:59



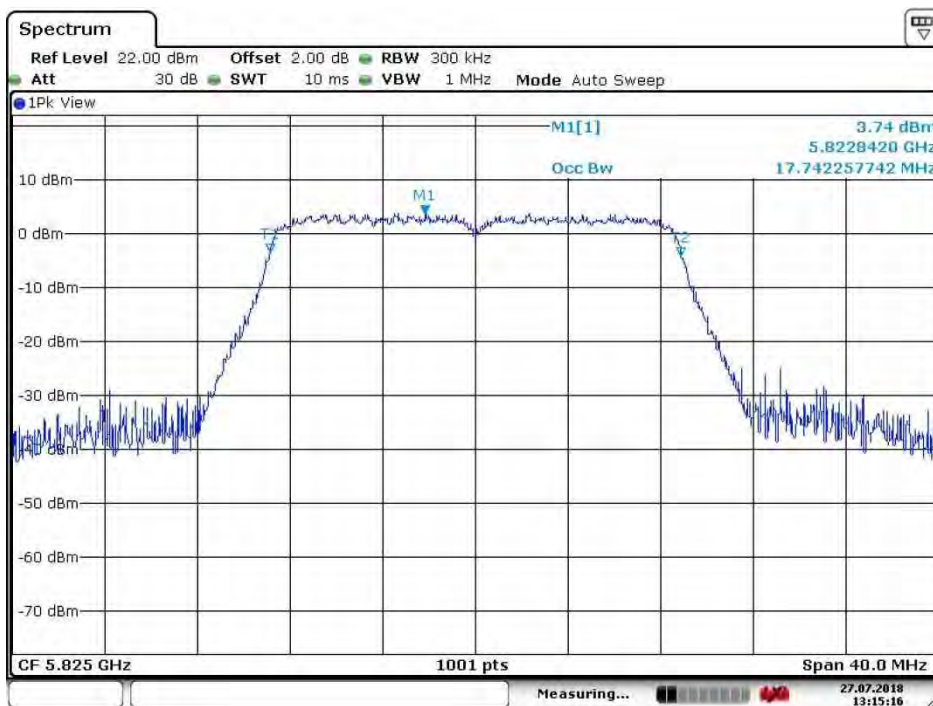
Date: 27 JUL 2018 13:14:46



5.5.1.1.11 11AC20\_165 ANT 1



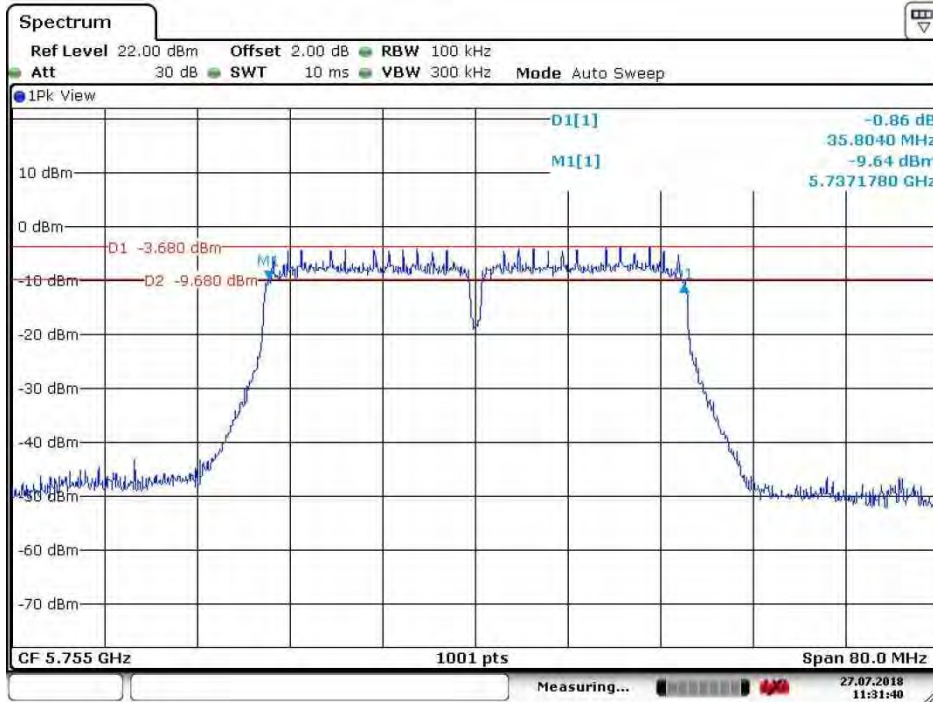
Date: 27.JUL.2018 11:24:21



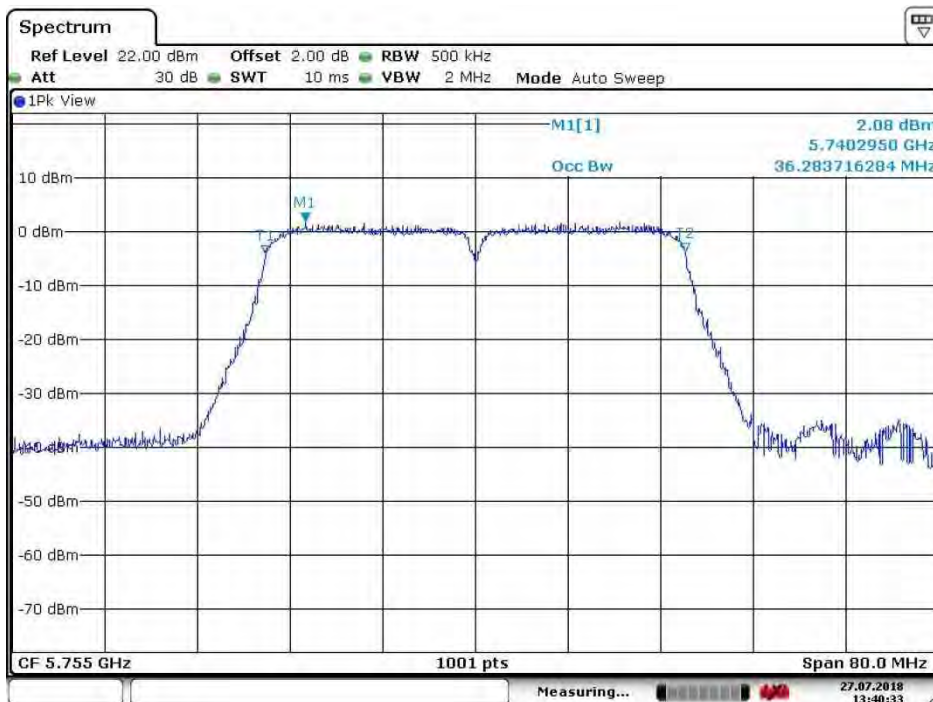
Date: 27.JUL.2018 13:15:17



5.5.1.1.12 11AC40\_151 ANT 1



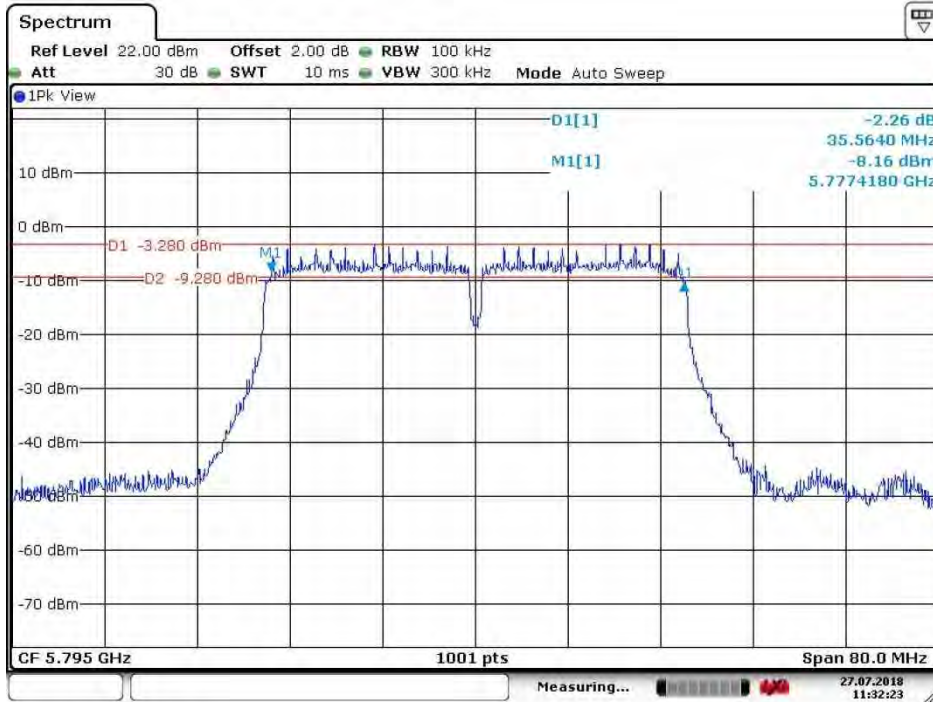
Date: 27 JUL 2018 11:31:40



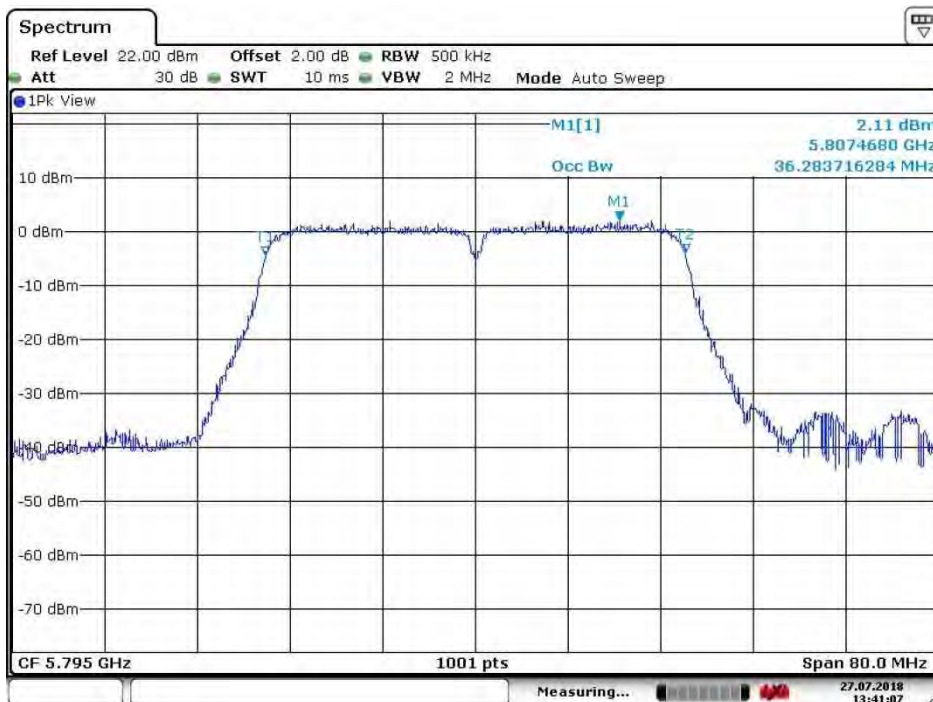
Date: 27 JUL 2018 13:40:33



5.5.1.1.13 11AC40\_159 ANT 1



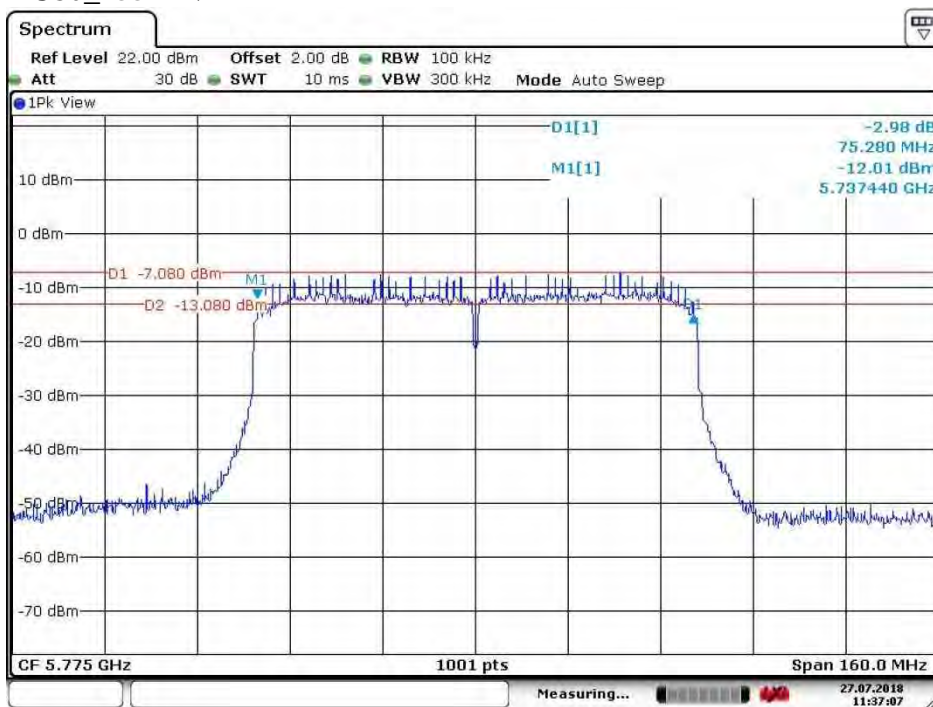
Date: 27 JUL 2018 11:32:23



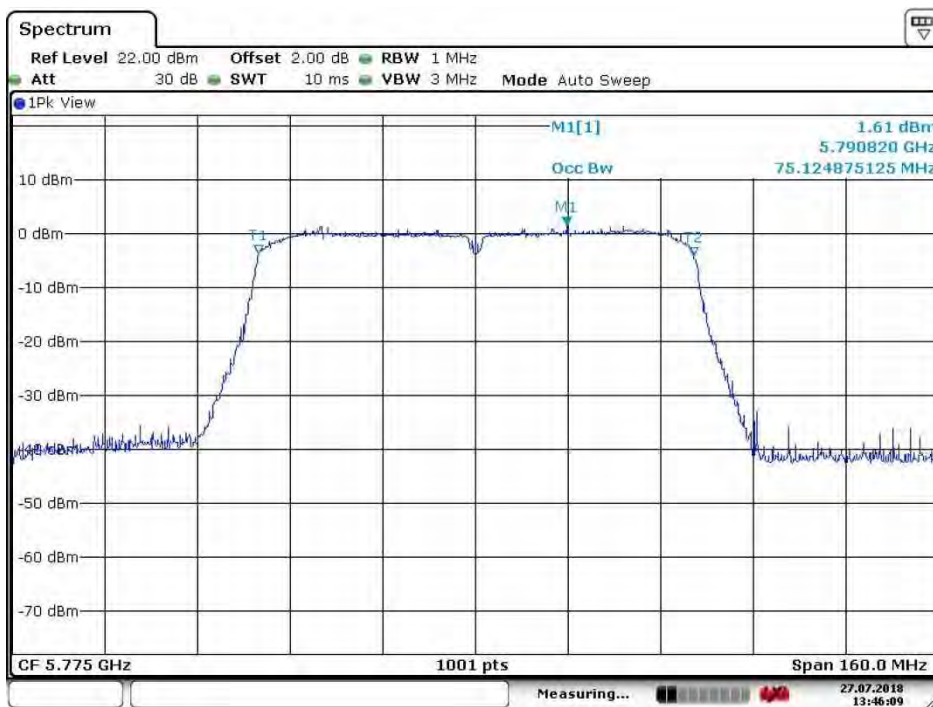
Date: 27 JUL 2018 13:41:07



5.5.1.1.14 11AC80\_155 ANT 1



Date: 27 JUL 2018 11:37:07

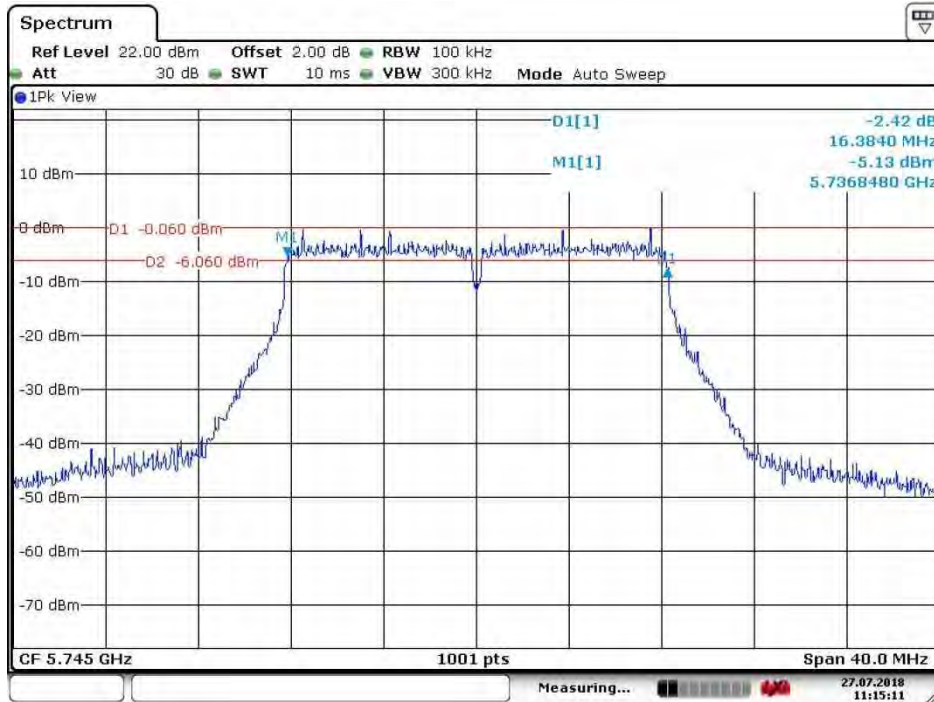


Date: 27 JUL 2018 13:46:08

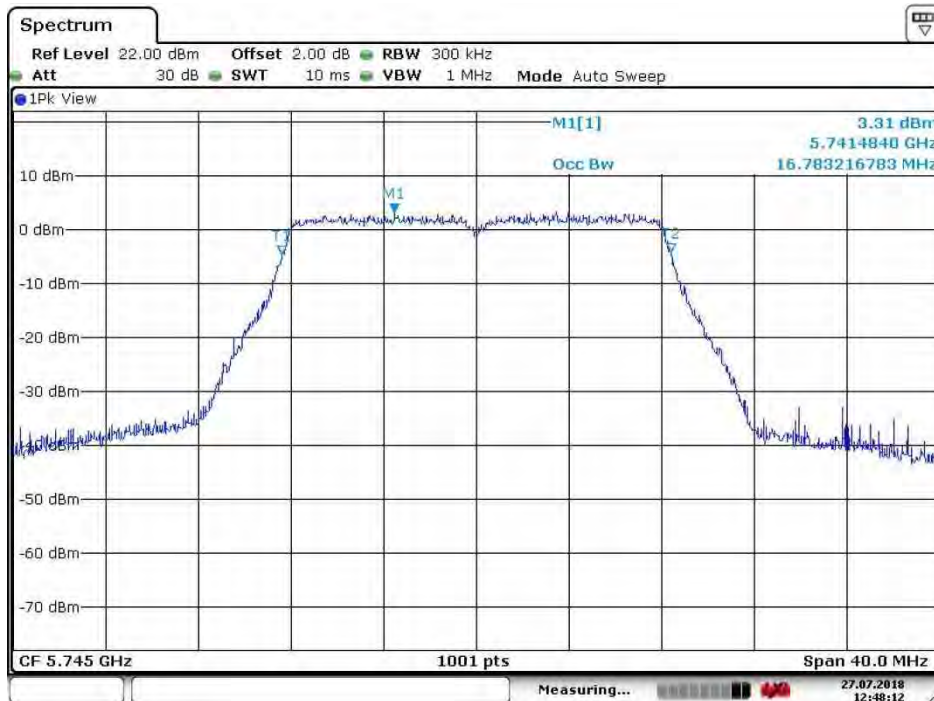


### 5.5.1.2 SISO\_ANT 2

#### 5.5.1.2.1 11A20\_149 ANT 2



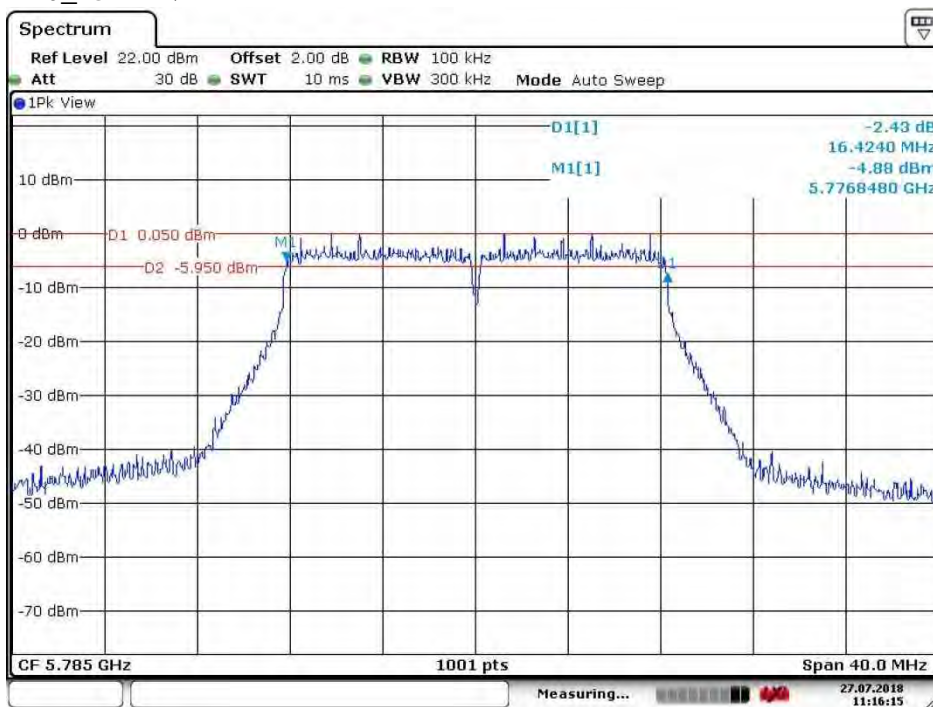
Date: 27.JUL.2018 11:15:12



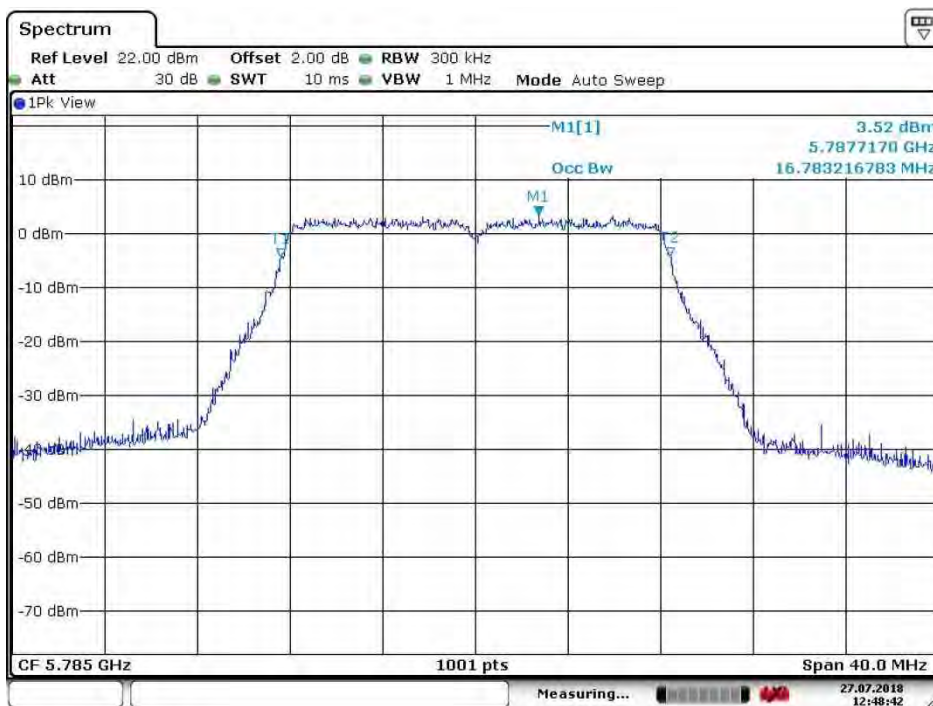
Date: 27.JUL.2018 12:48:13



5.5.1.2.2 11A20\_157 ANT 2



Date: 27 JUL 2018 11:16:15

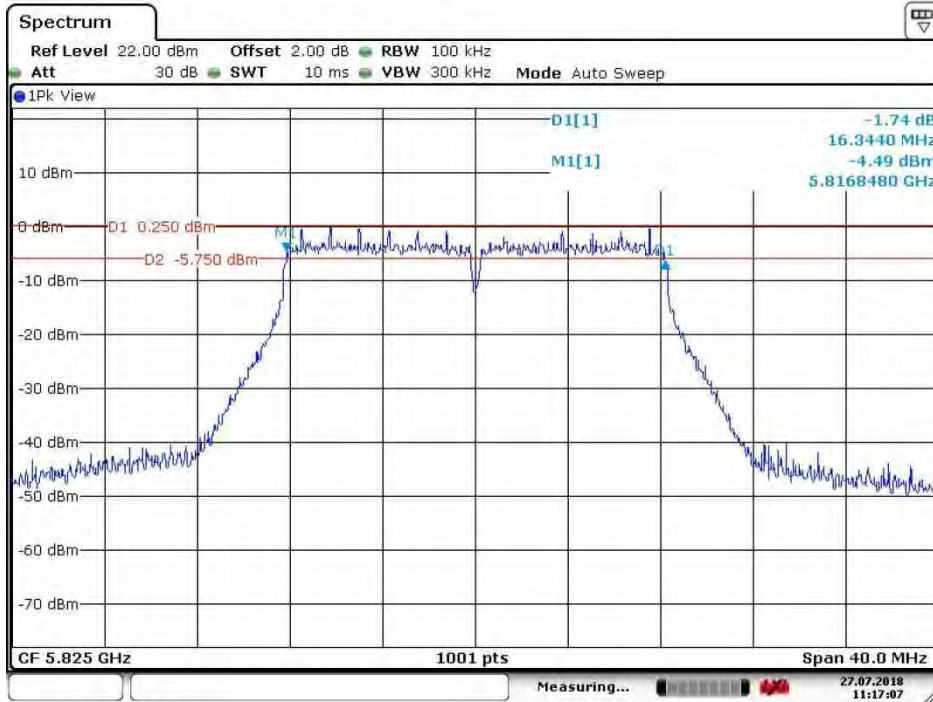


Date: 27 JUL 2018 12:48:42

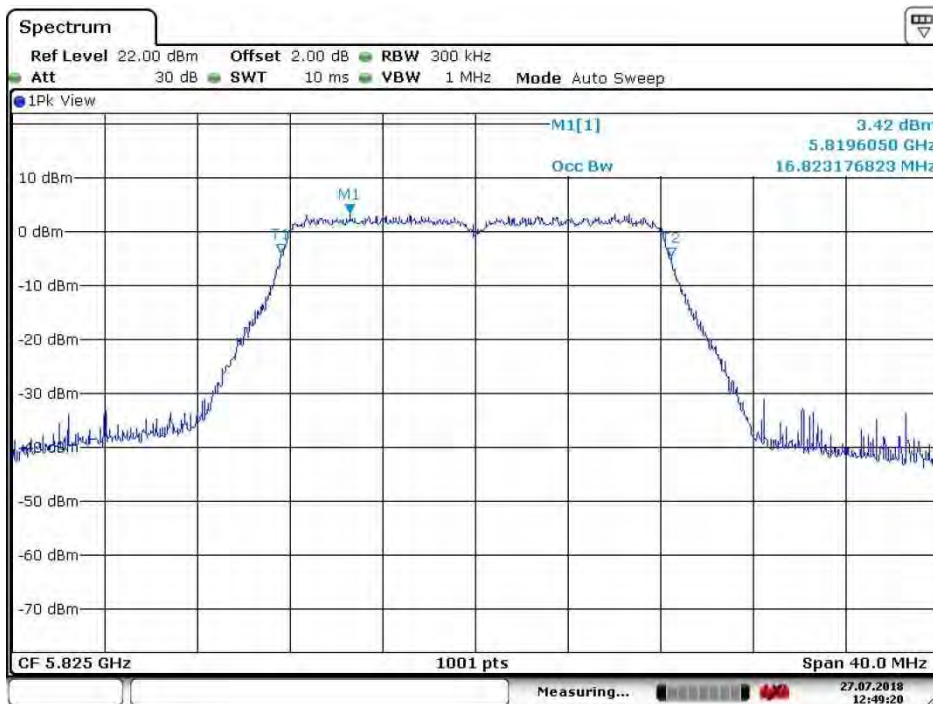




5.5.1.2.3 11A20\_165 ANT 2



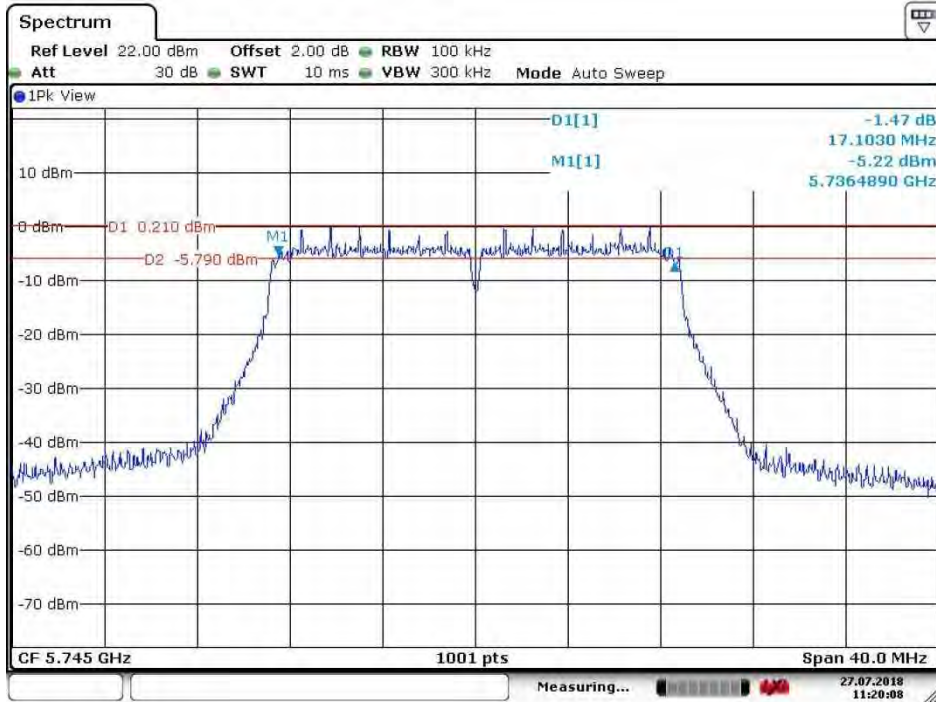
Date: 27.JUL.2018 11:17:07



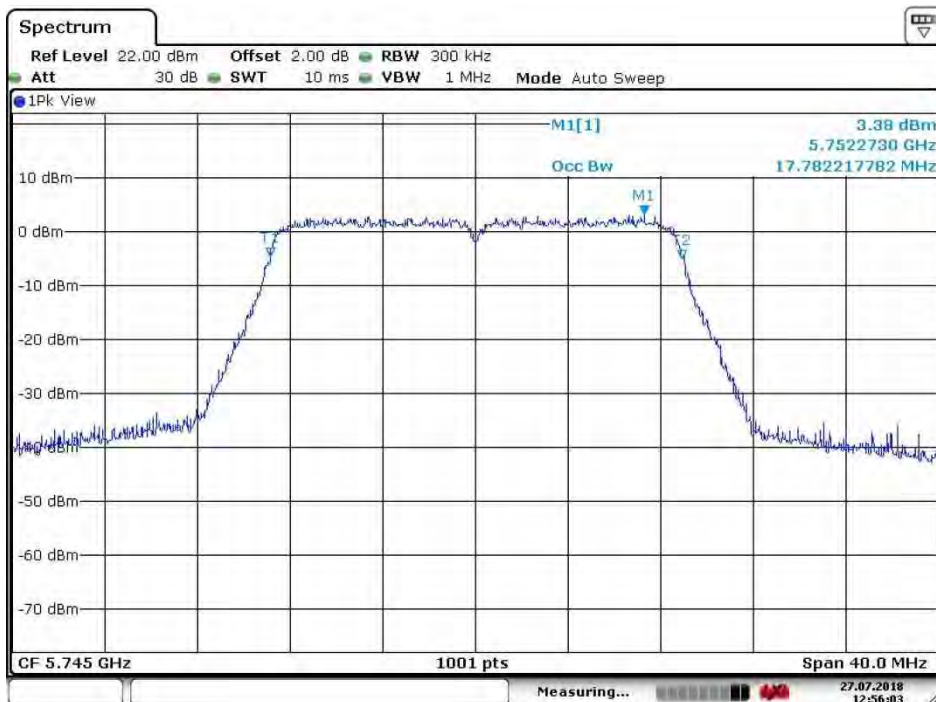
Date: 27.JUL.2018 12:49:21



5.5.1.2.4 11N20\_149 ANT 2



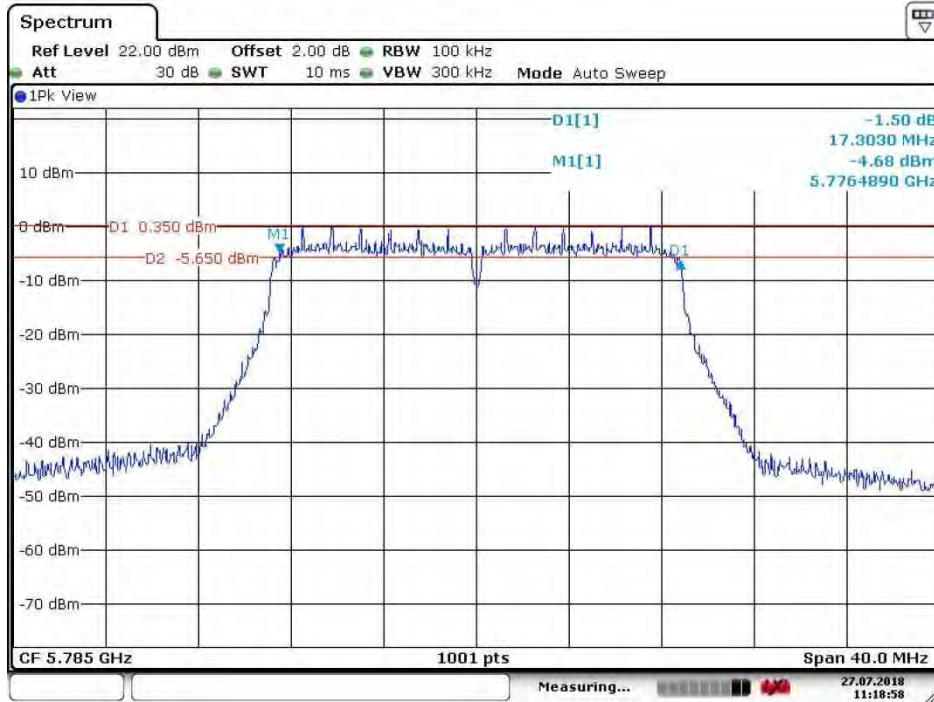
Date: 27 JUL 2018 11:20:09



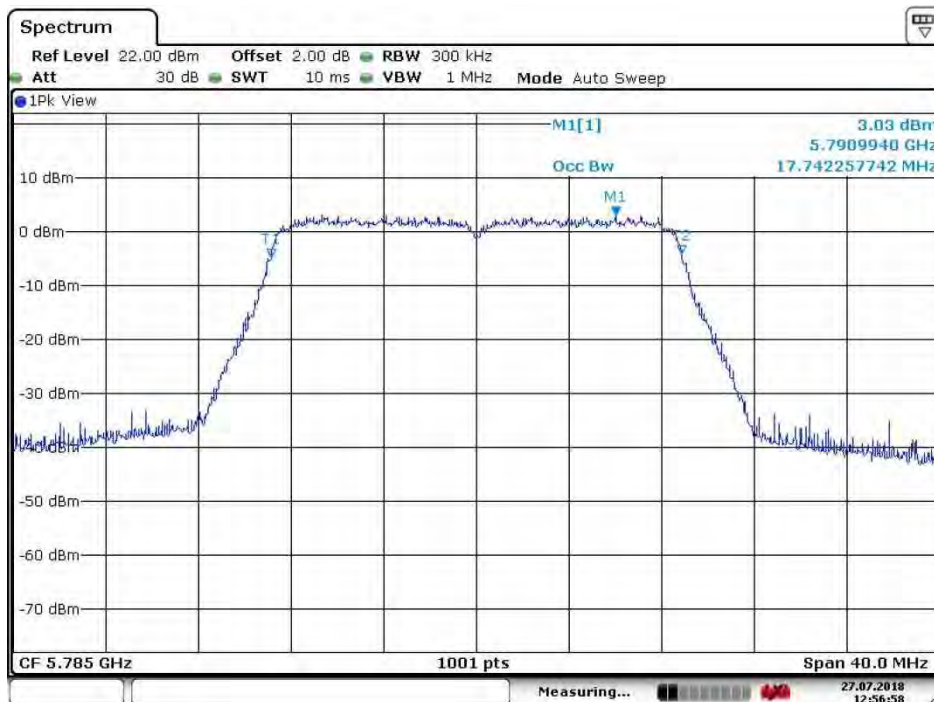
Date: 27 JUL 2018 12:56:03



5.5.1.2.5 11N20\_157 ANT 2



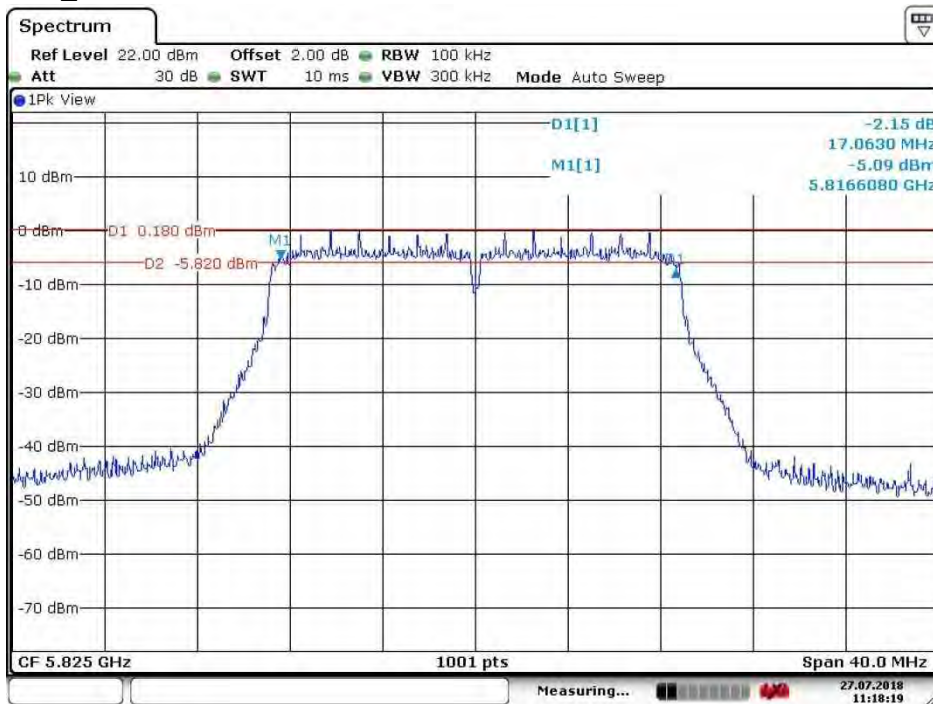
Date: 27 JUL 2018 11:18:57



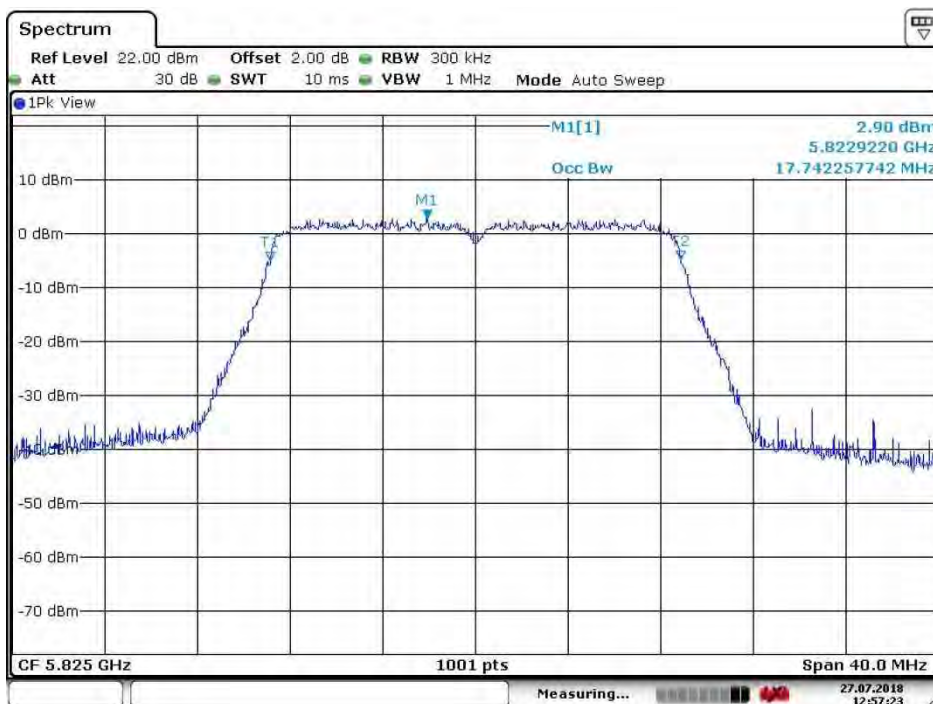
Date: 27 JUL 2018 12:56:58



5.5.1.2.6 11N20\_165 ANT 2



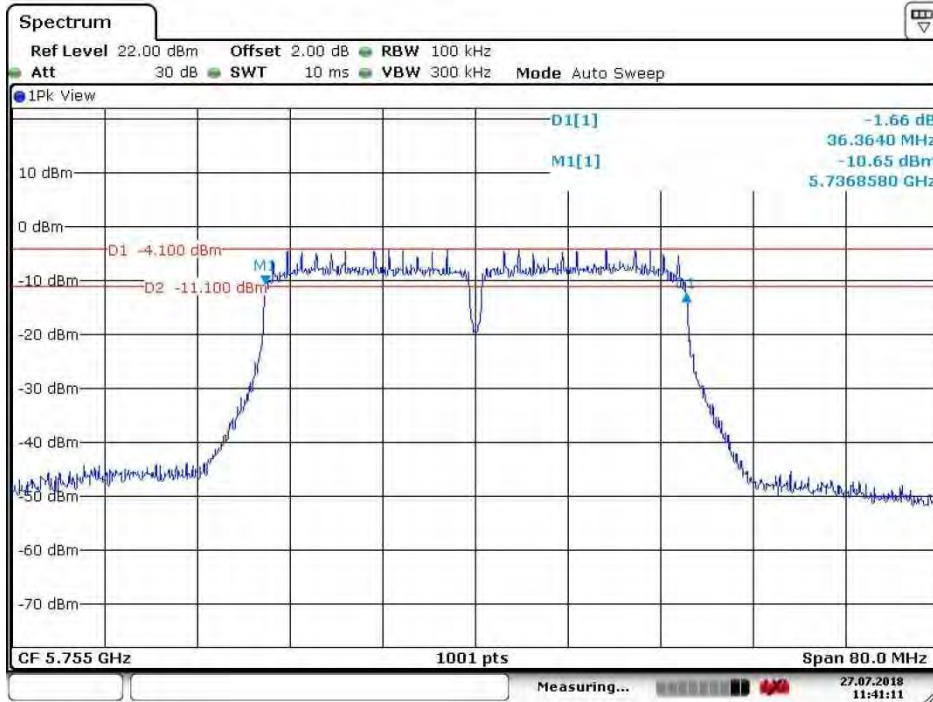
Date: 27.JUL.2018 11:18:19



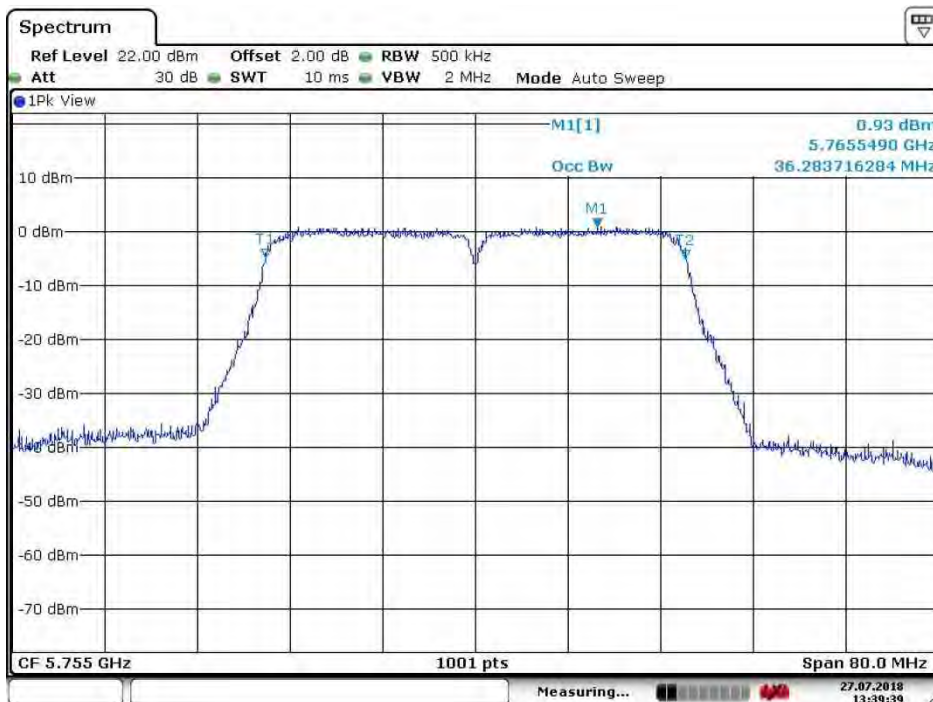
Date: 27.JUL.2018 12:57:23



5.5.1.2.7 11N40\_151 ANT 2



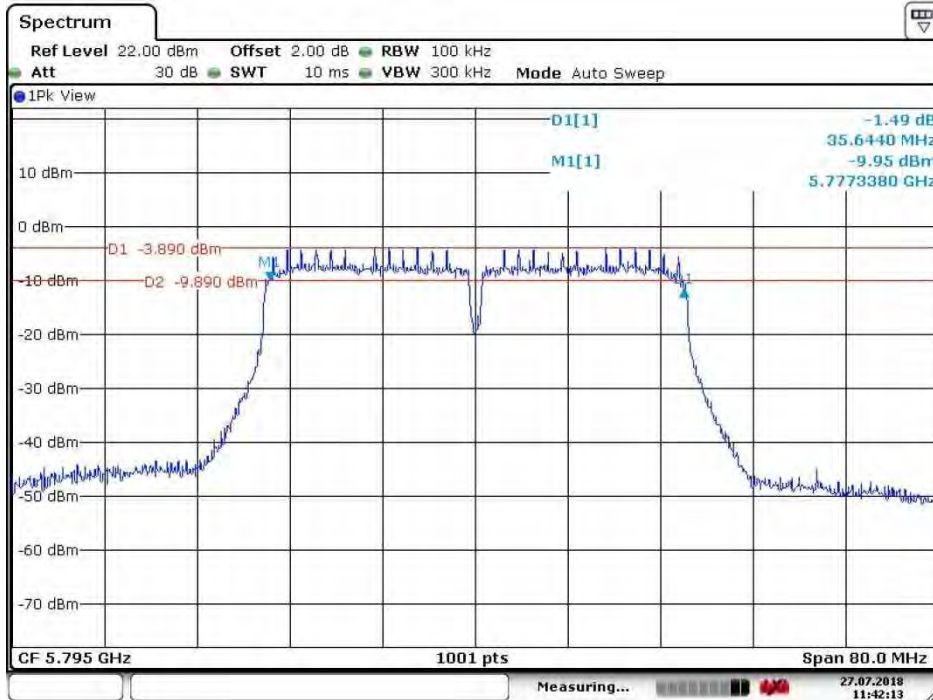
Date: 27 JUL 2018 11:41:11



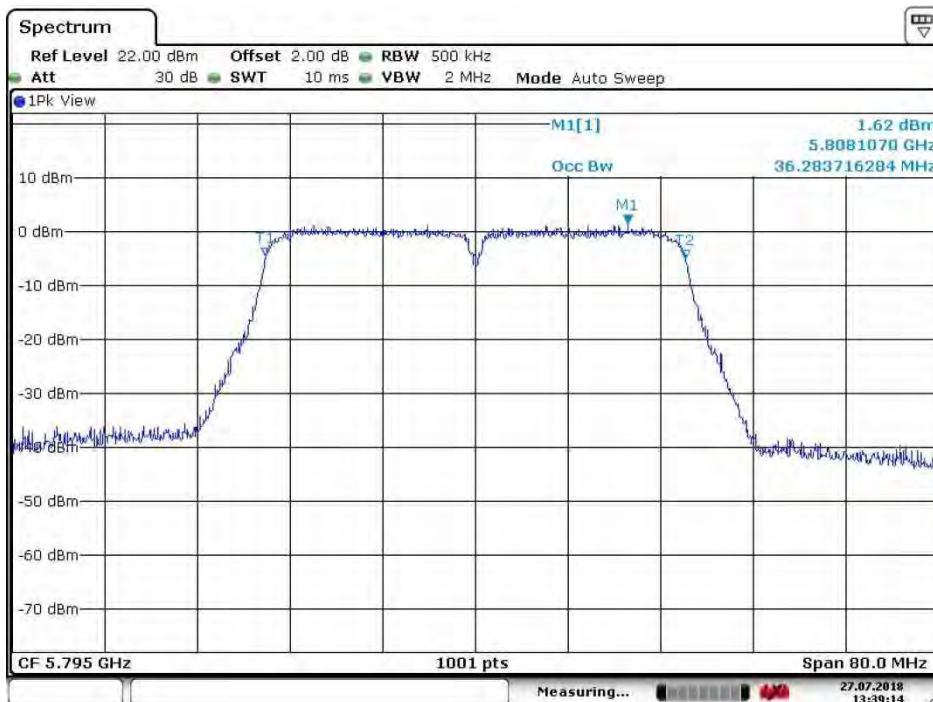
Date: 27 JUL 2018 13:39:40



5.5.1.2.8 11N40\_159 ANT 2



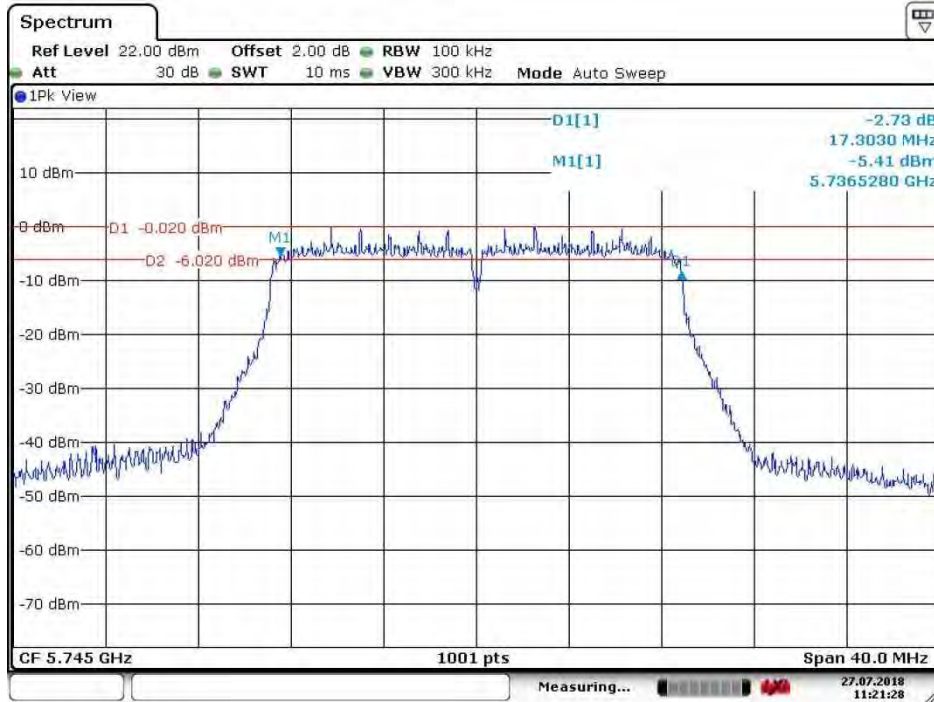
Date: 27.JUL.2018 11:42:13



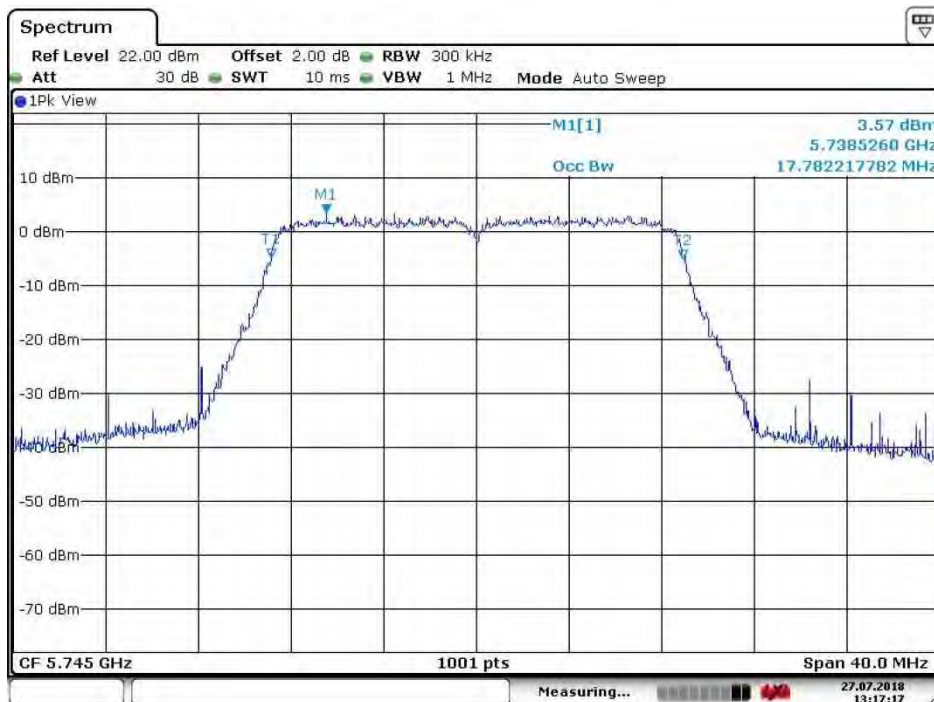
Date: 27.JUL.2018 13:39:14



5.5.1.2.9 11AC20\_149 ANT 2



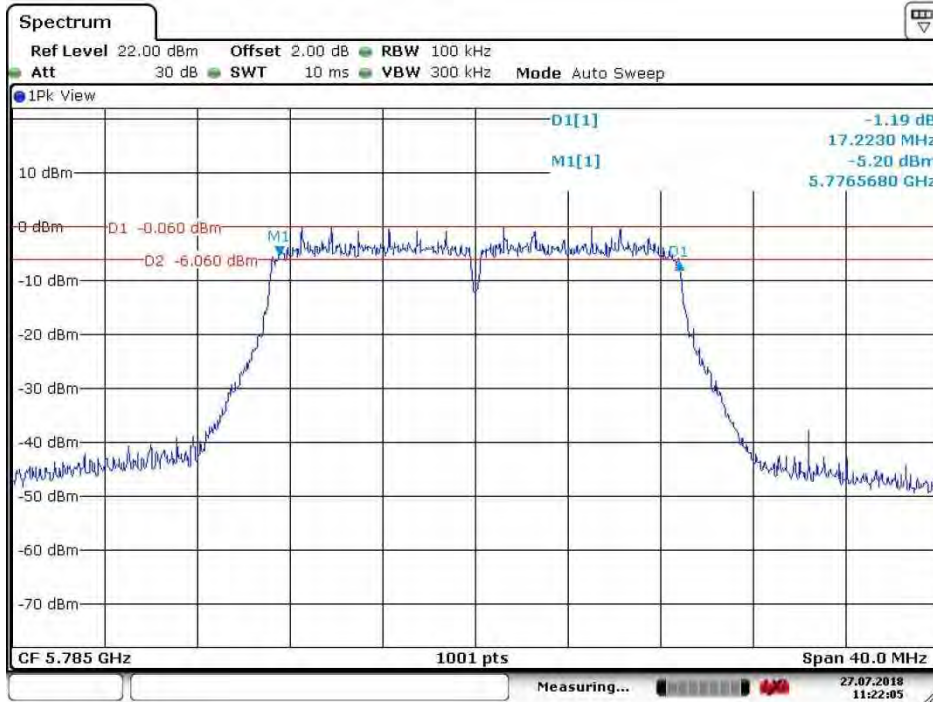
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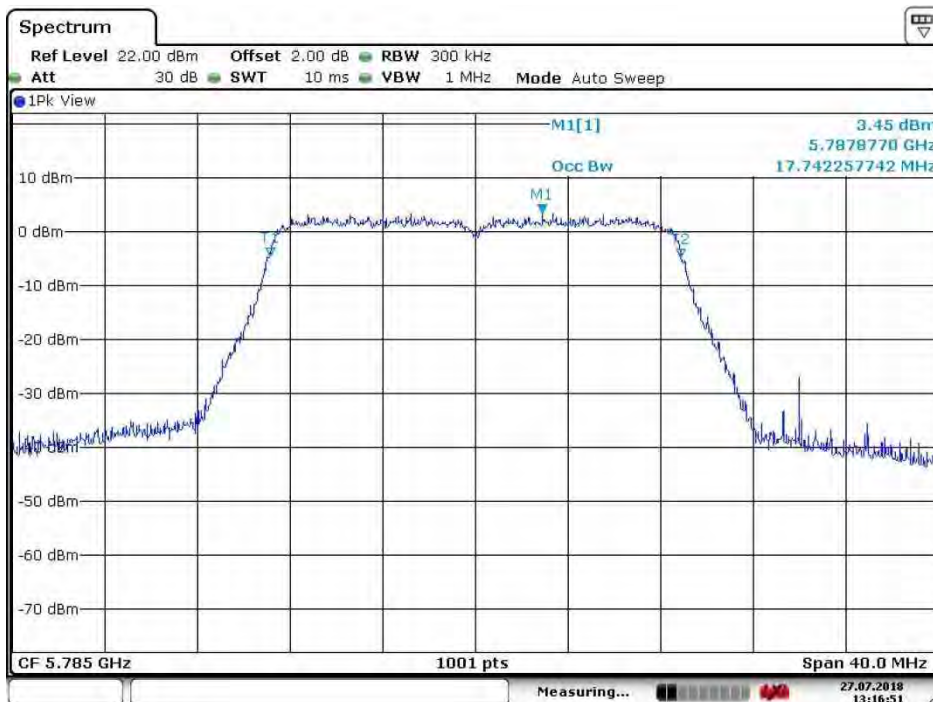
Date: 27.JUL.2018 13:17:17



5.5.1.2.10 11AC20\_157 ANT 2



Date: 27 JUL 2018 11:22:05

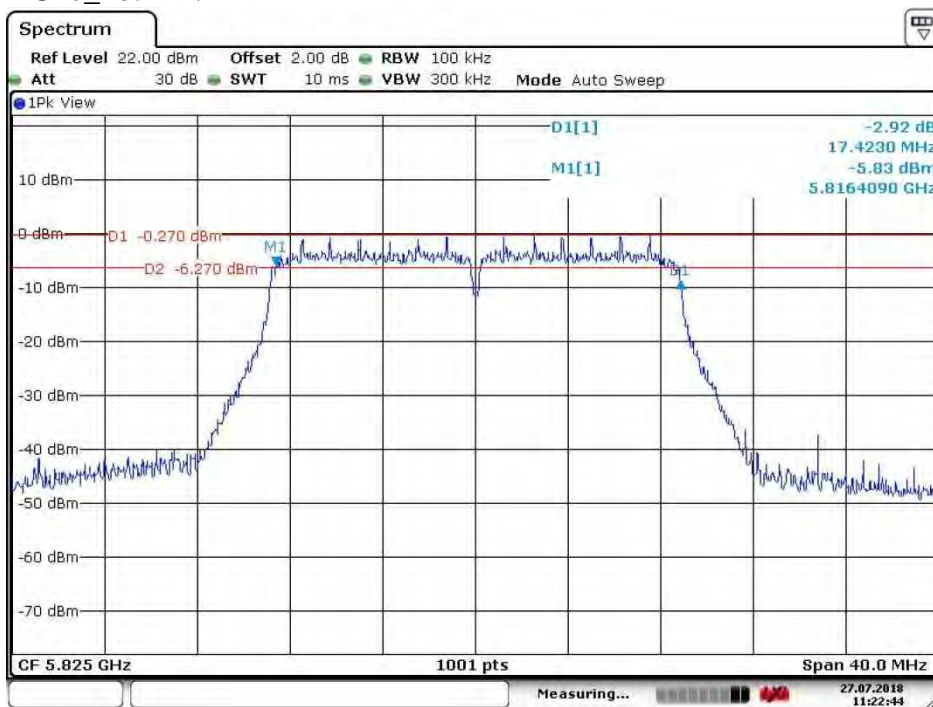


Date: 27 JUL 2018 13:16:52

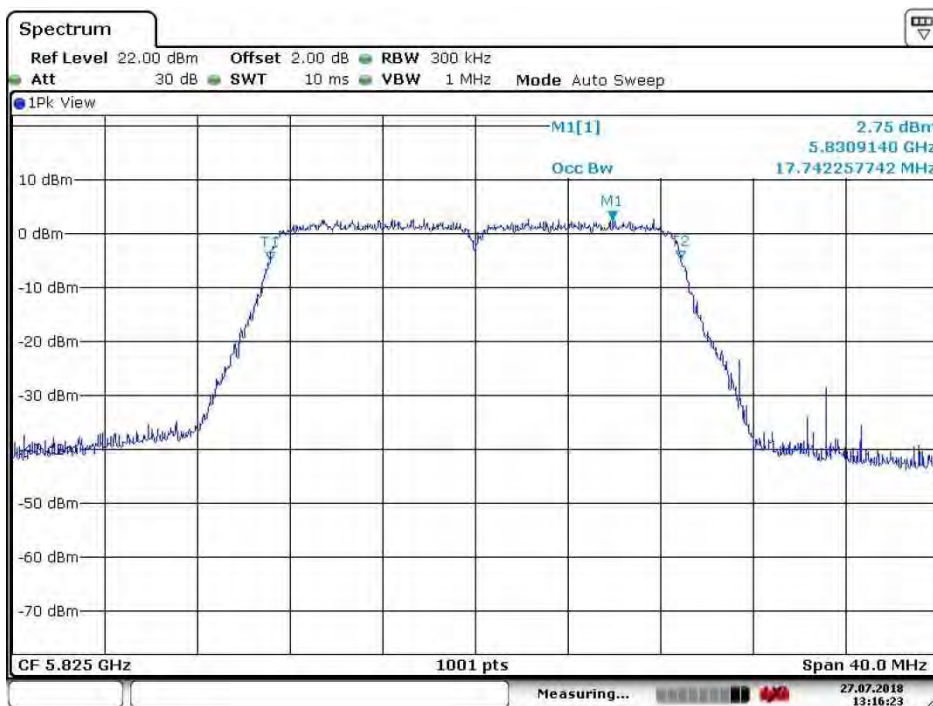




5.5.1.2.11 11AC20\_165 ANT 2



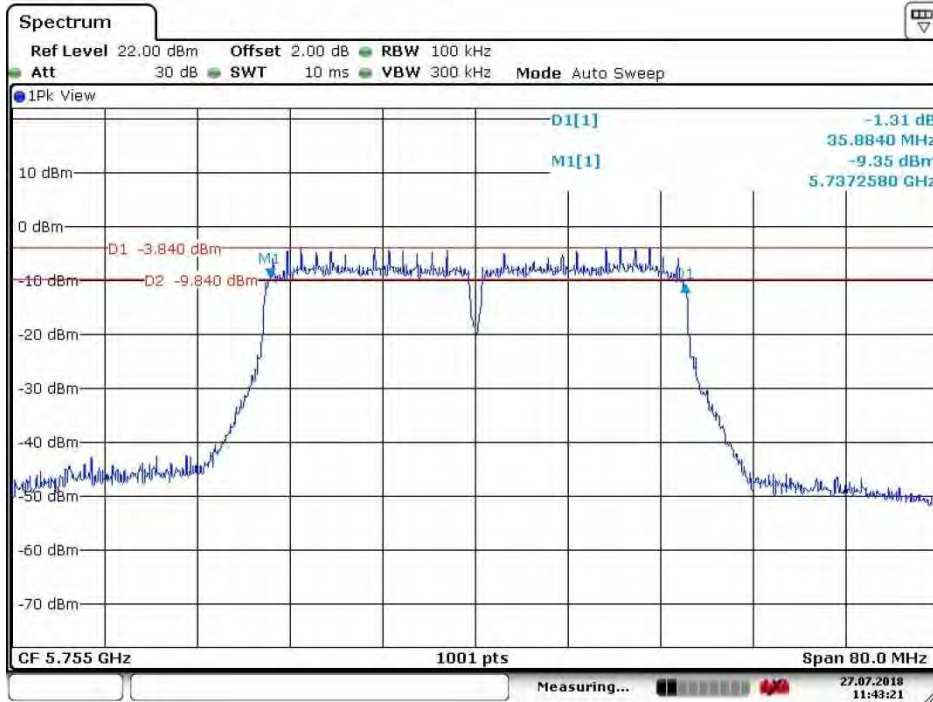
Date: 27.JUL.2018 11:22:44



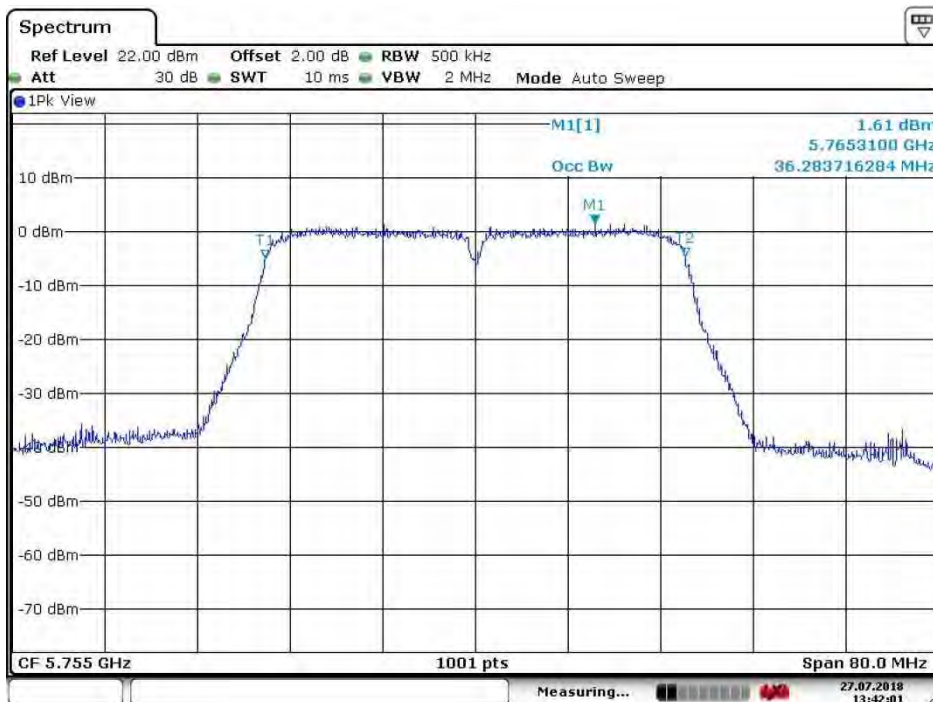
Date: 27.JUL.2018 13:16:24



5.5.1.2.12 11AC40\_151 ANT 2



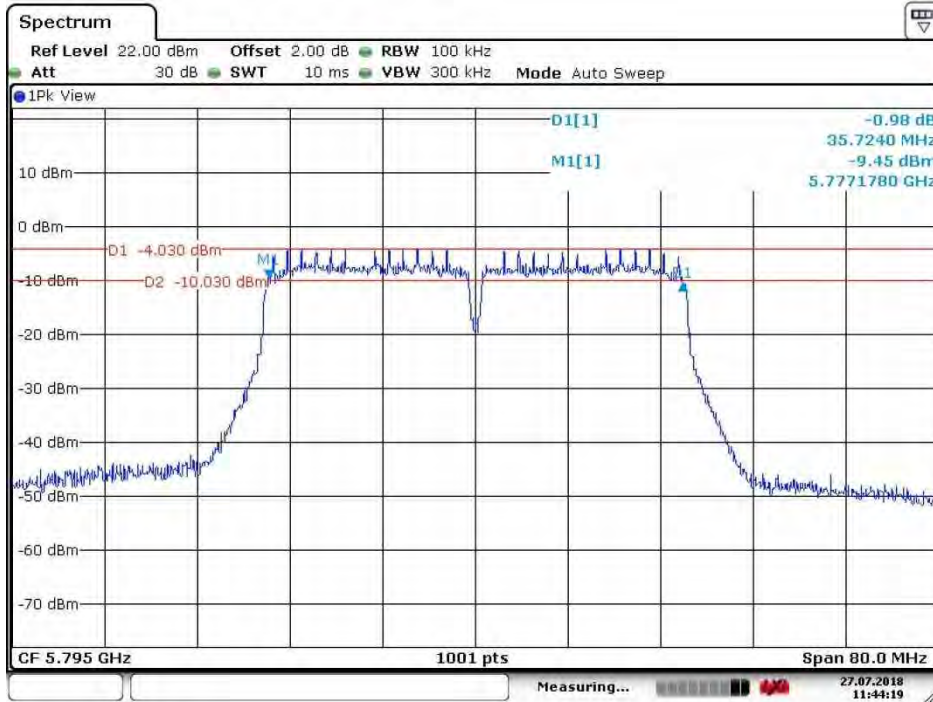
Date: 27.JUL.2018 11:43:21



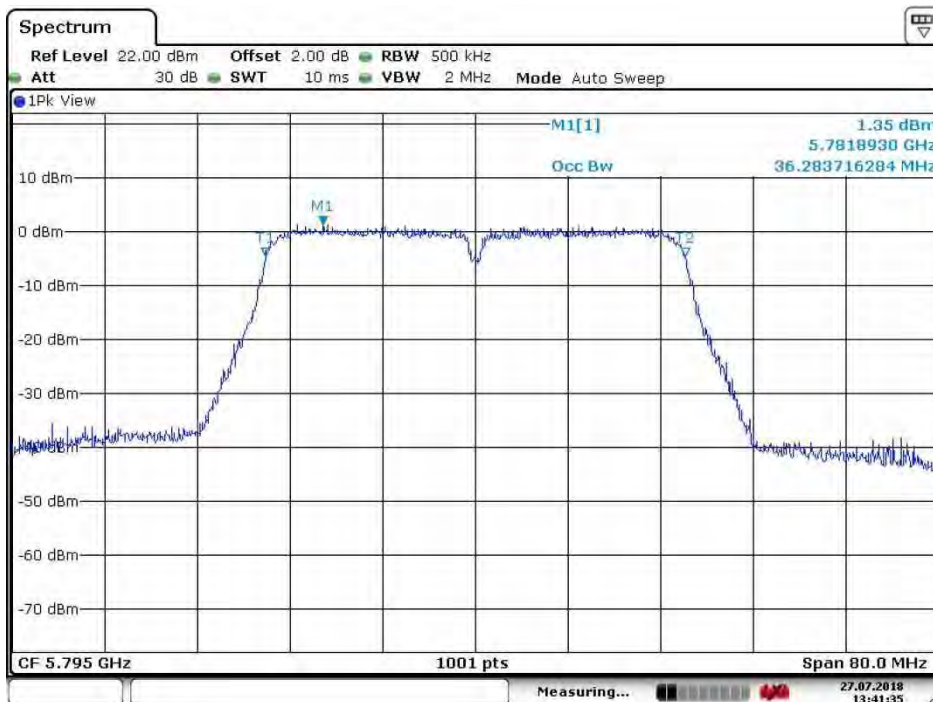
Date: 27.JUL.2018 13:42:02



5.5.1.2.13 11AC40\_159 ANT 2



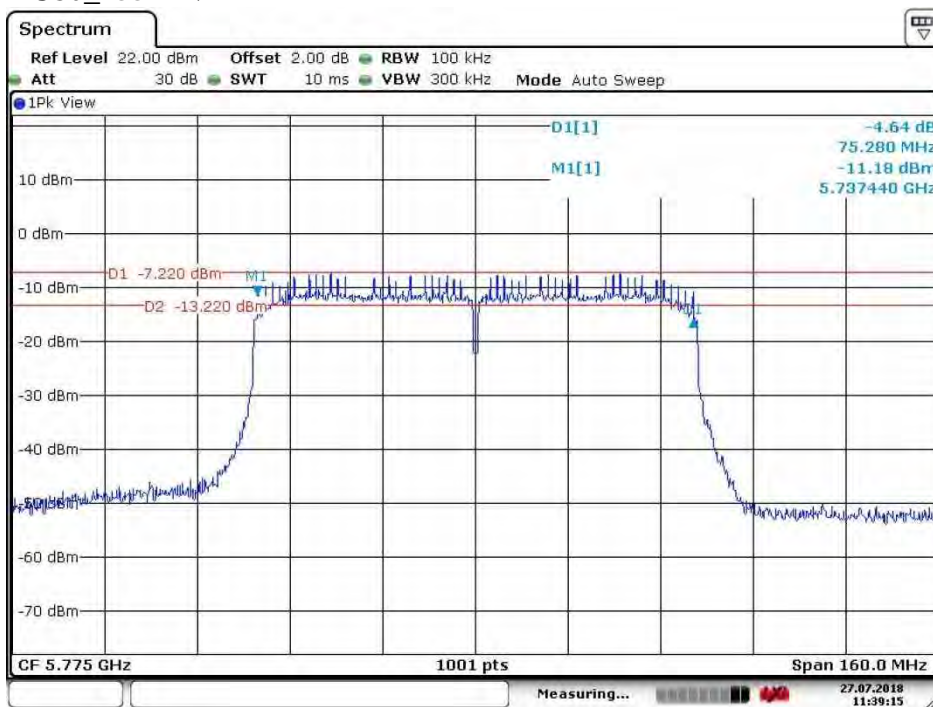
Date: 27.JUL.2018 11:44:19



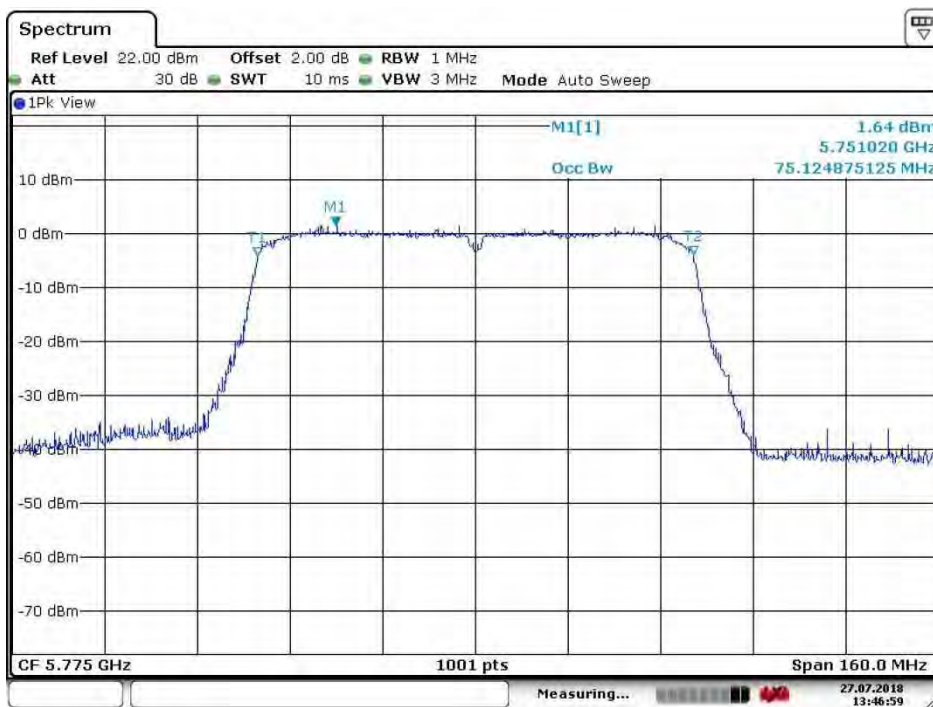
Date: 27.JUL.2018 13:41:35



5.5.1.2.14 11AC80\_155 ANT 2



Date: 27 JUL 2018 11:39:15

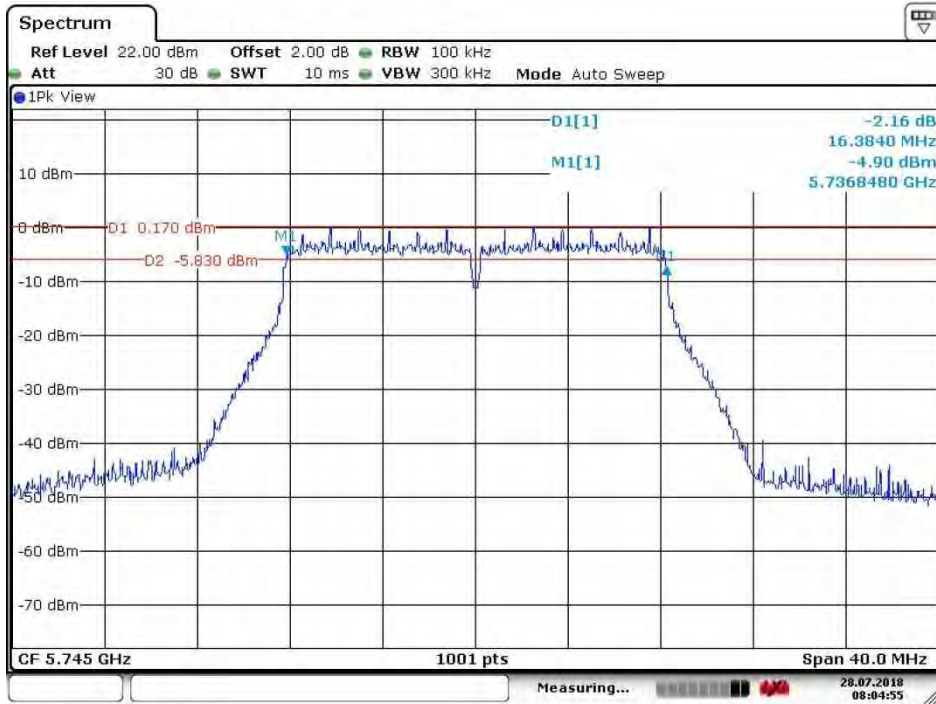


Date: 27 JUL 2018 13:46:59

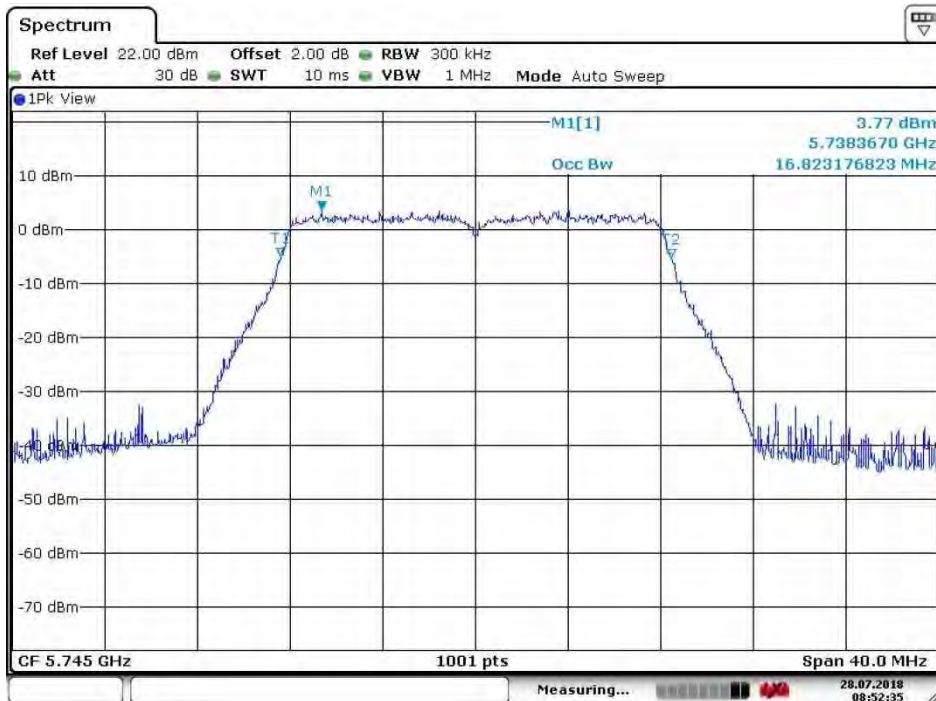


### 5.5.1.3 MIMO\_ANT 1

#### 5.5.1.3.1 11A20\_149 ANT 1



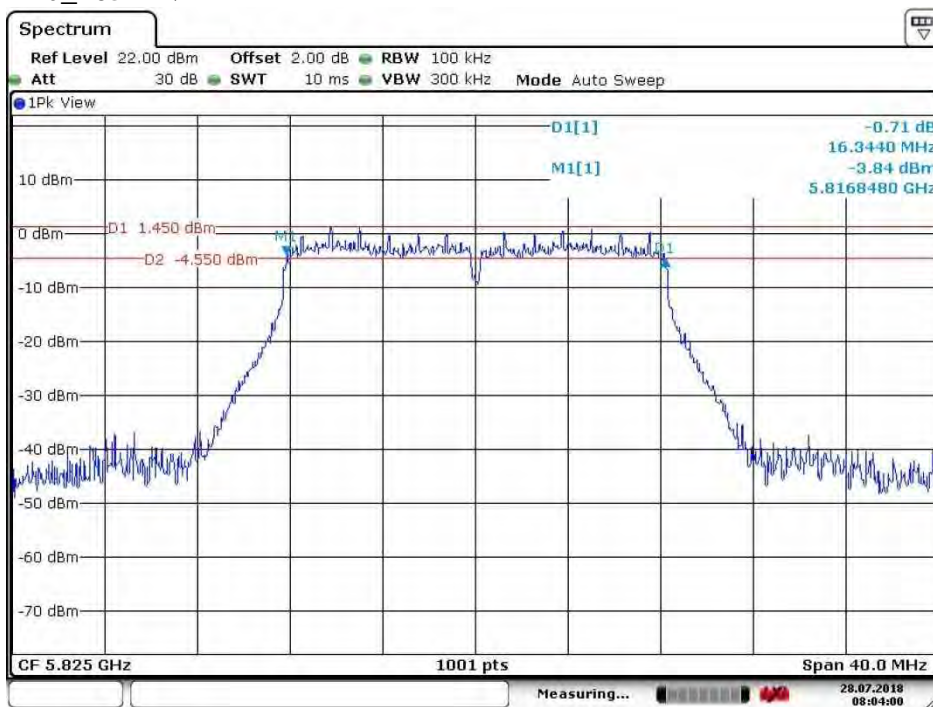
Date: 28 JUL 2018 08:04:56



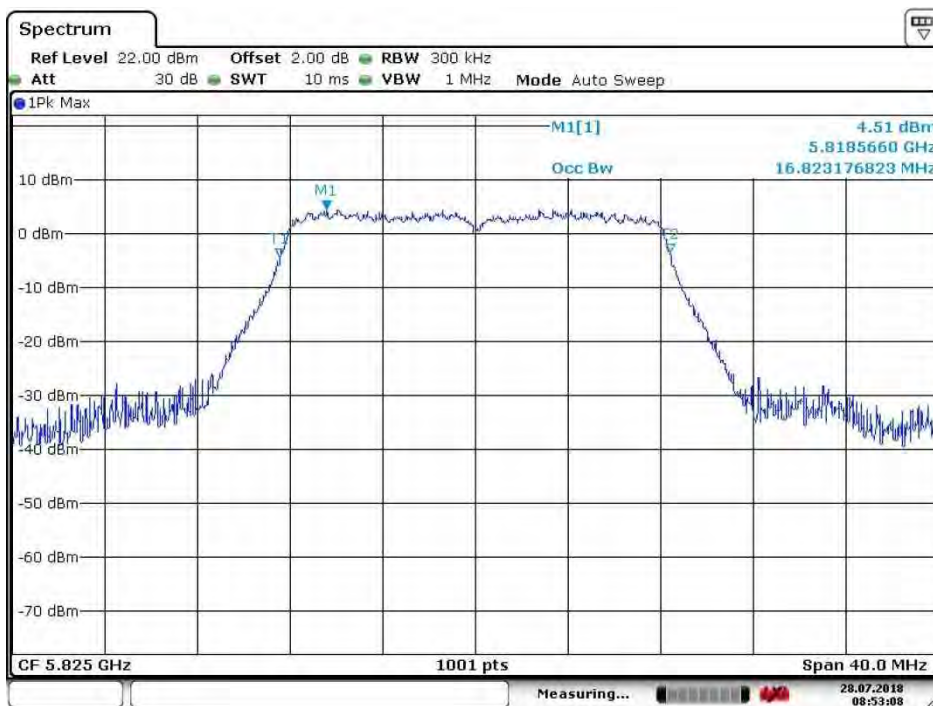
Date: 28 JUL 2018 08:52:35



5.5.1.3.2 11A20\_165 ANT 1



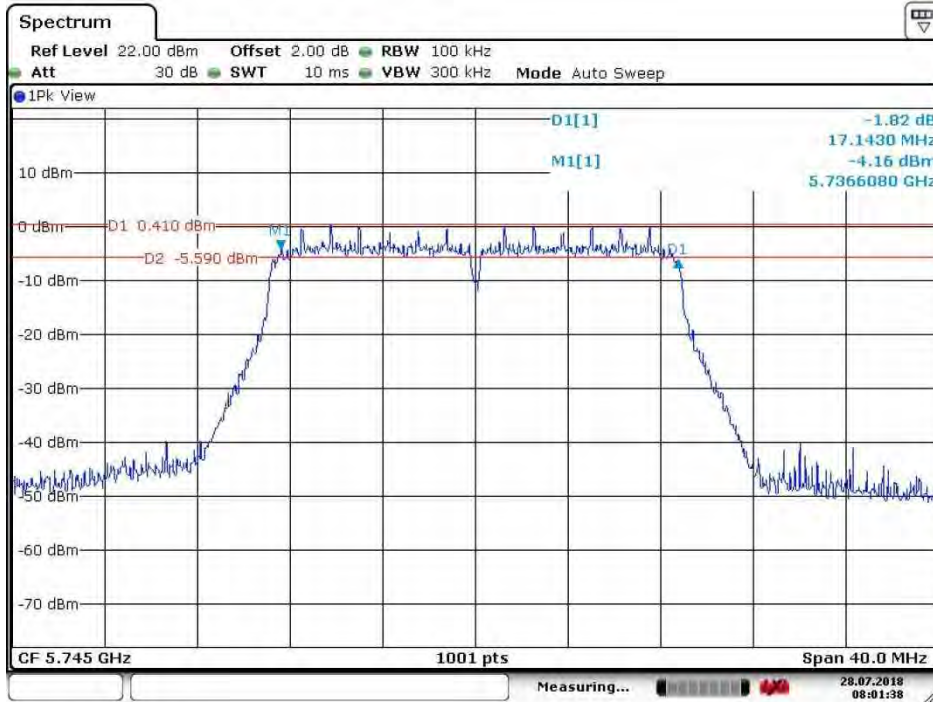
Date: 28 JUL 2018 08:04:00



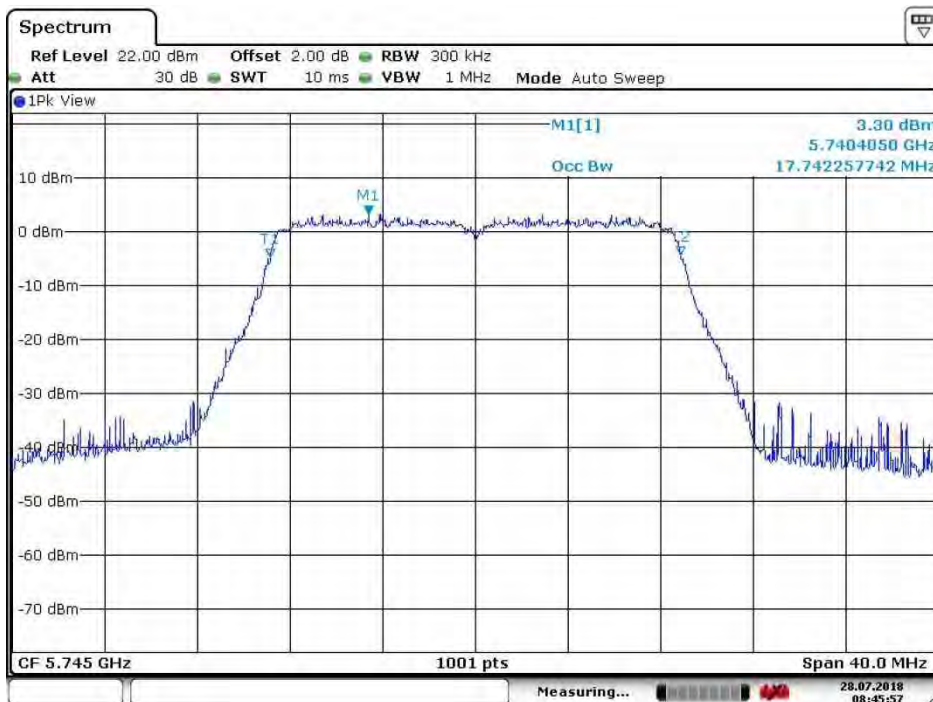
Date: 28 JUL 2018 08:53:09



5.5.1.3.3 11N20\_149 ANT 1



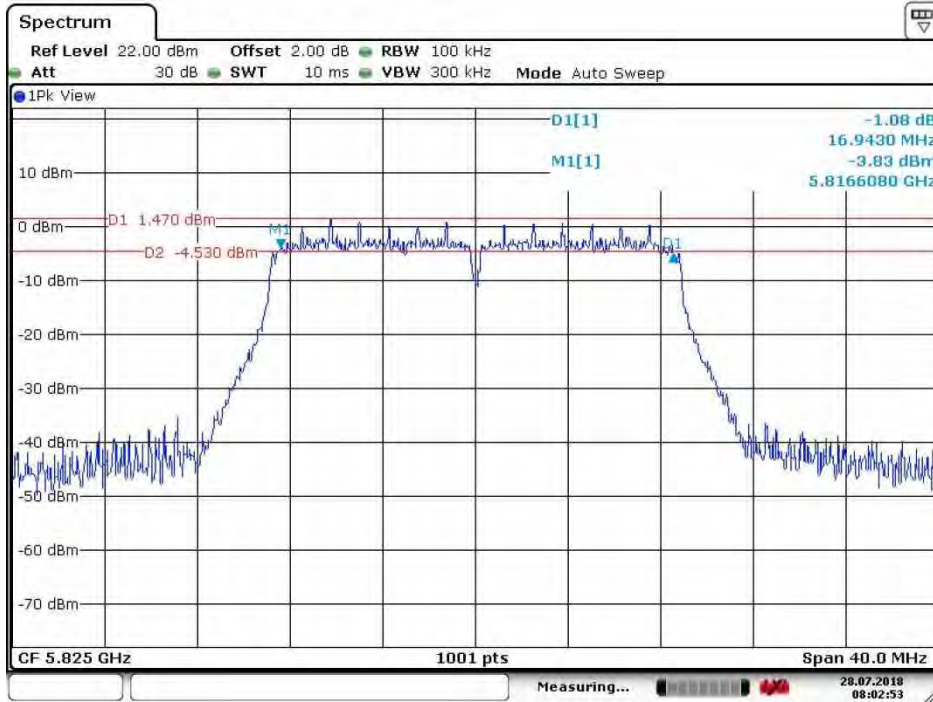
Date: 28 JUL 2018 08:01:38



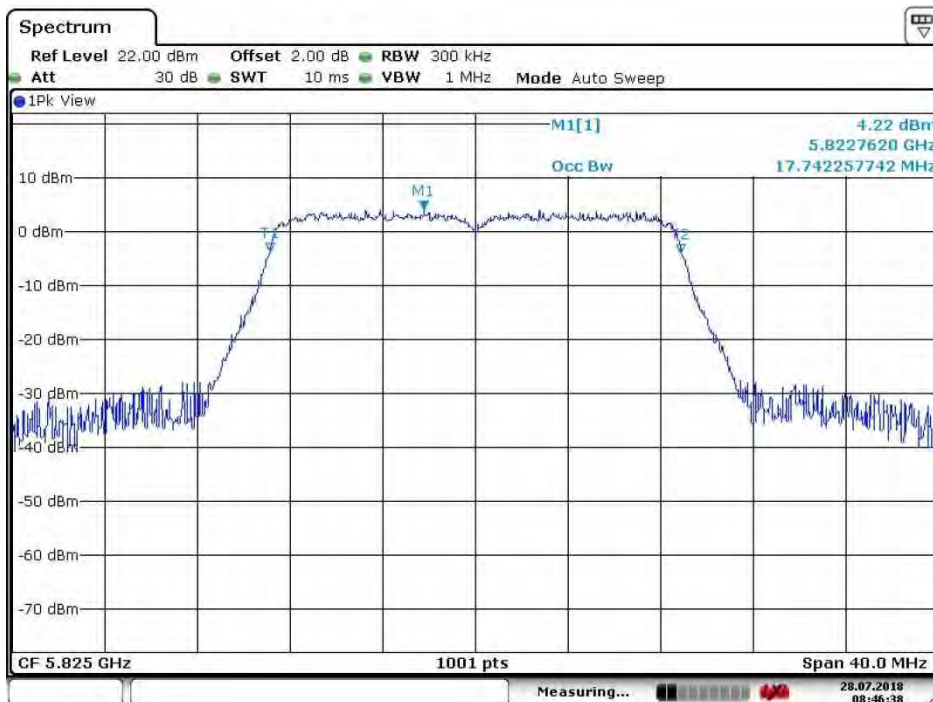
Date: 28 JUL 2018 08:45:58



5.5.1.3.4 11N20\_165 ANT 1



Date: 28 JUL 2018 08:02:53

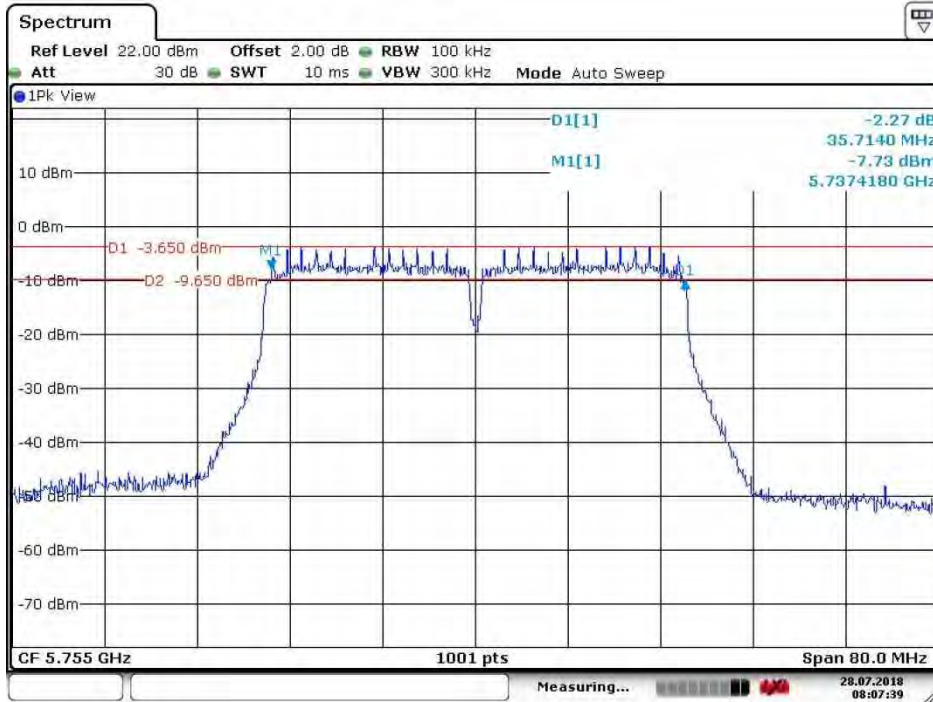


Date: 28 JUL 2018 08:46:38

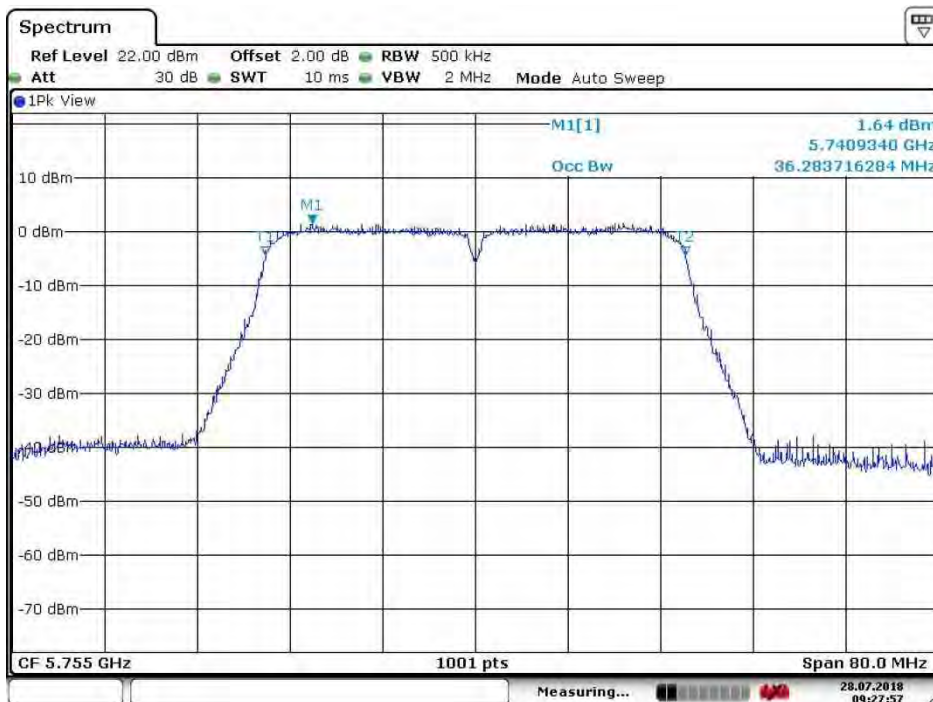




5.5.1.3.5 11N40\_151 ANT 1



Date: 28 JUL 2018 08:07:39

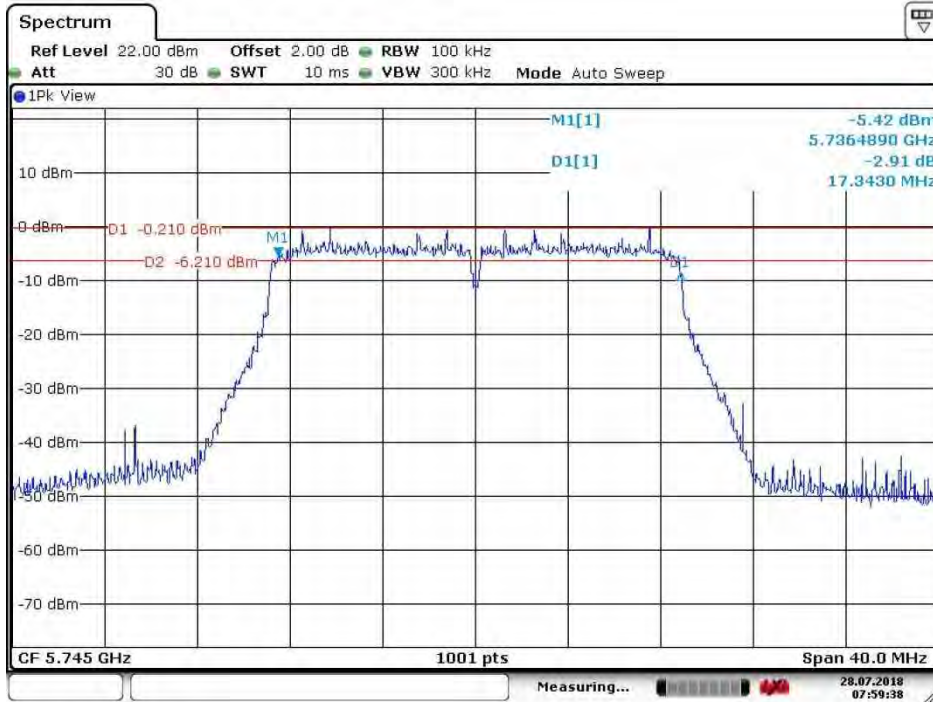


Date: 28 JUL 2018 09:27:58

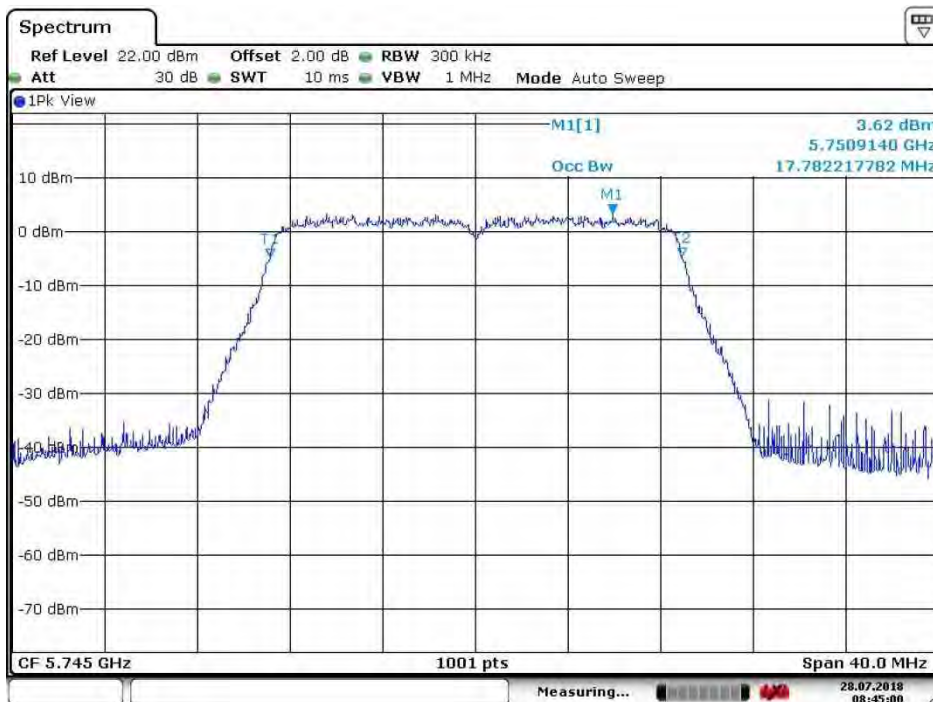




5.5.1.3.7 11AC20\_149 ANT 1

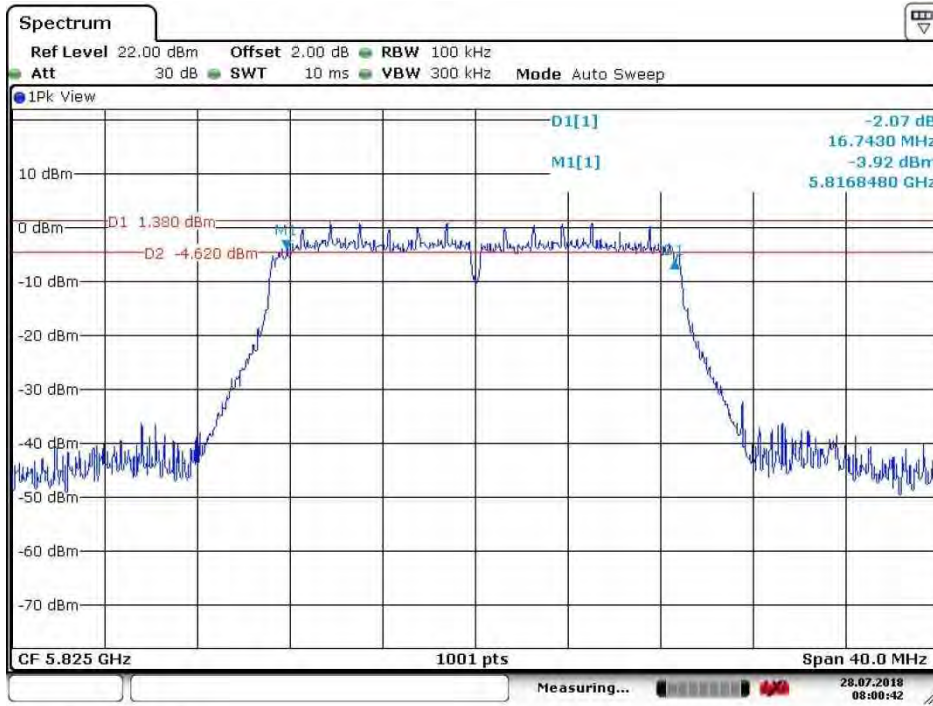


Date: 28 JUL 2018 07:59:38

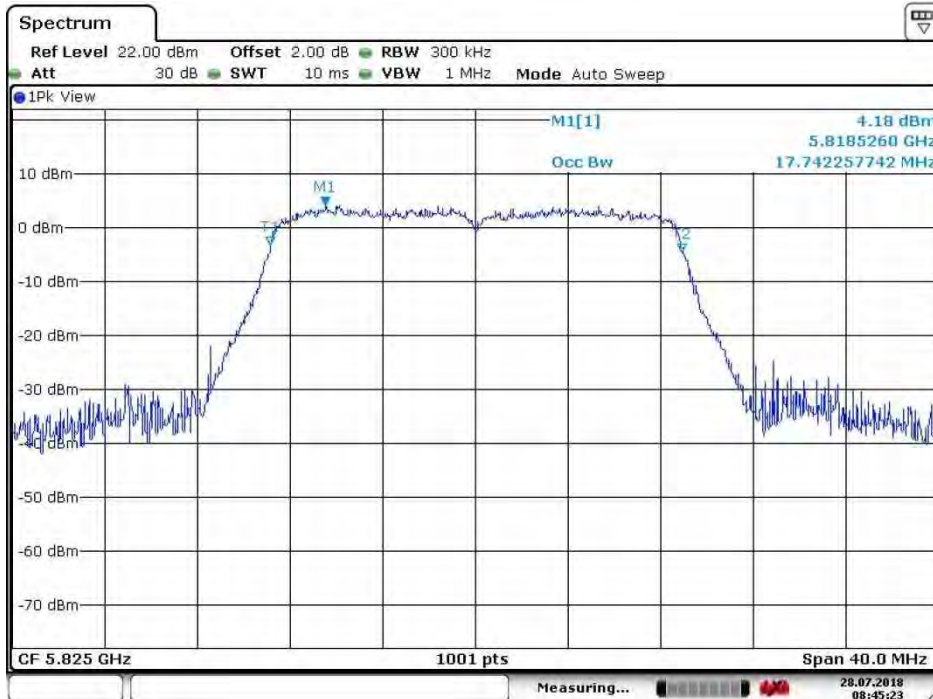


Date: 28 JUL 2018 08:45:00

5.5.1.3.8 11AC20\_165 ANT 1



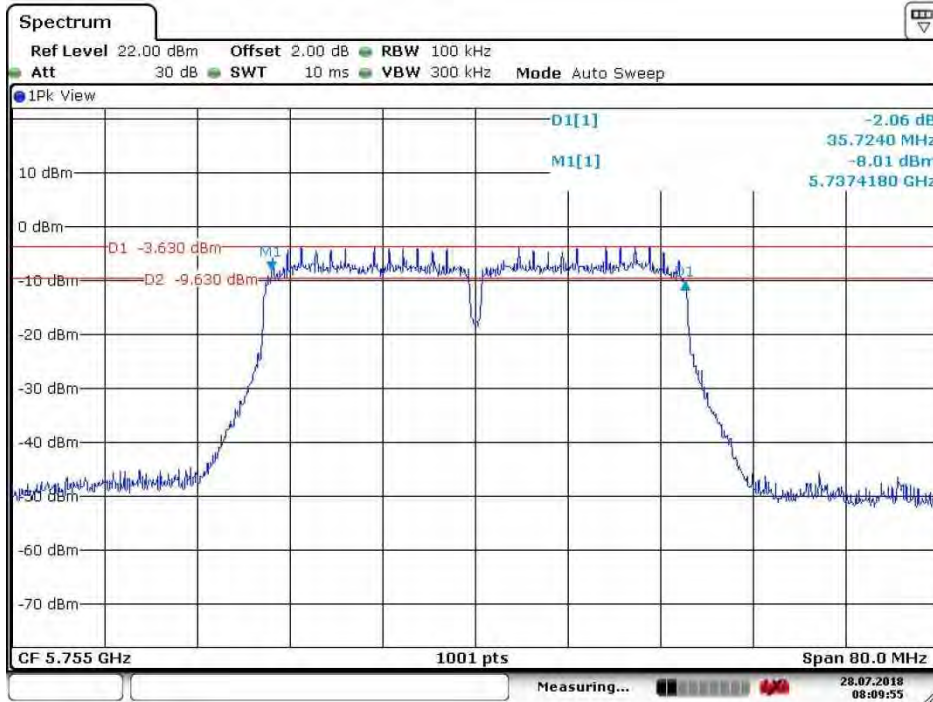
Date: 28.JUL.2018 08:00:42



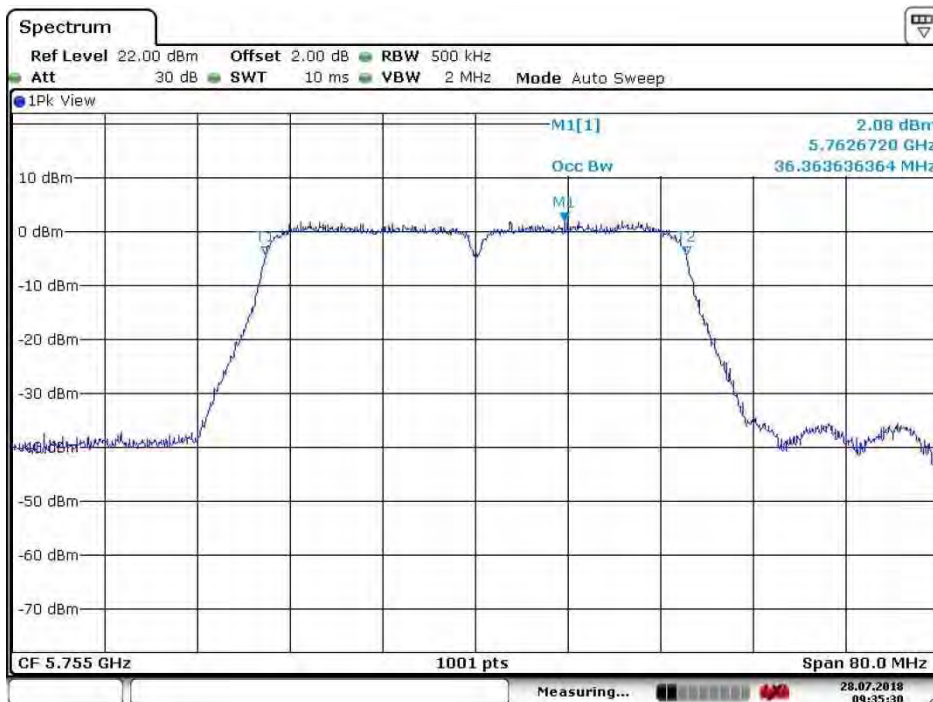
Date: 28.JUL.2018 08:45:23



5.5.1.3.9 11AC40\_151 ANT 1



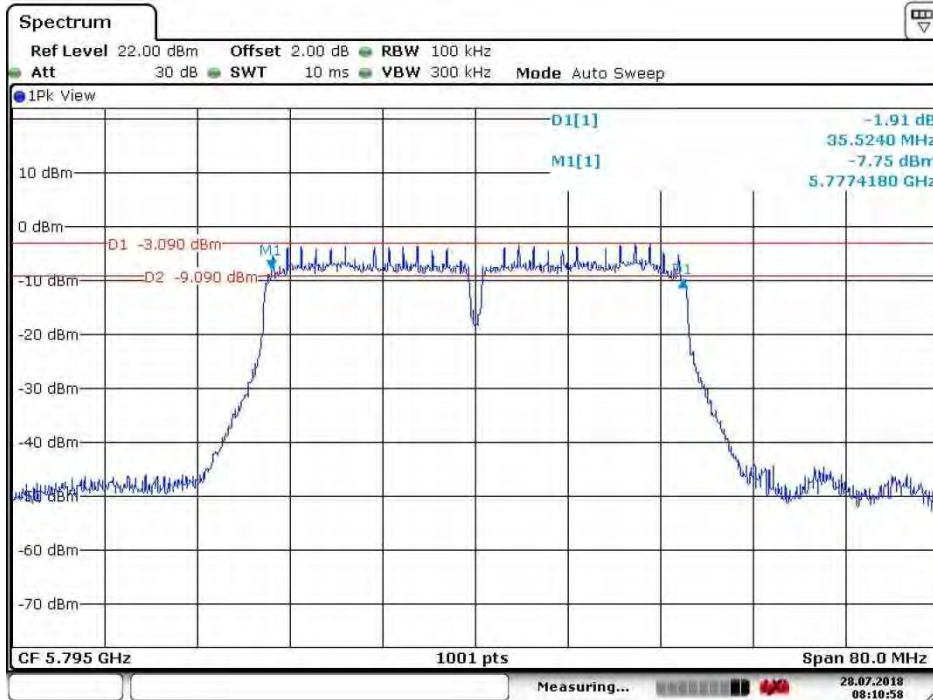
Date: 28 JUL 2018 08:09:55



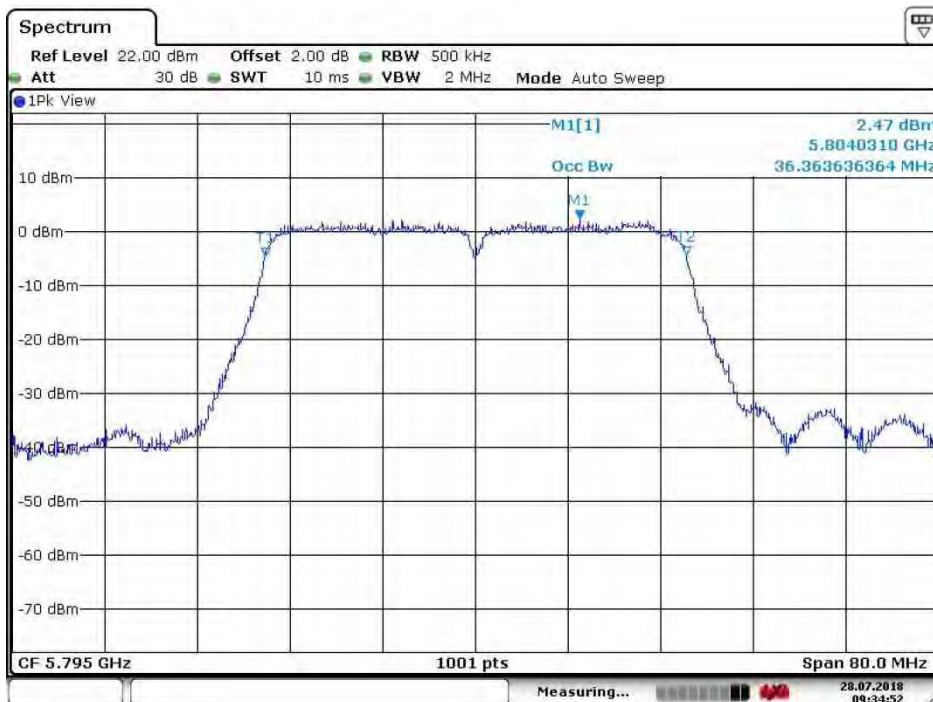
Date: 28 JUL 2018 09:35:31



5.5.1.3.10 11AC40\_159 ANT 1



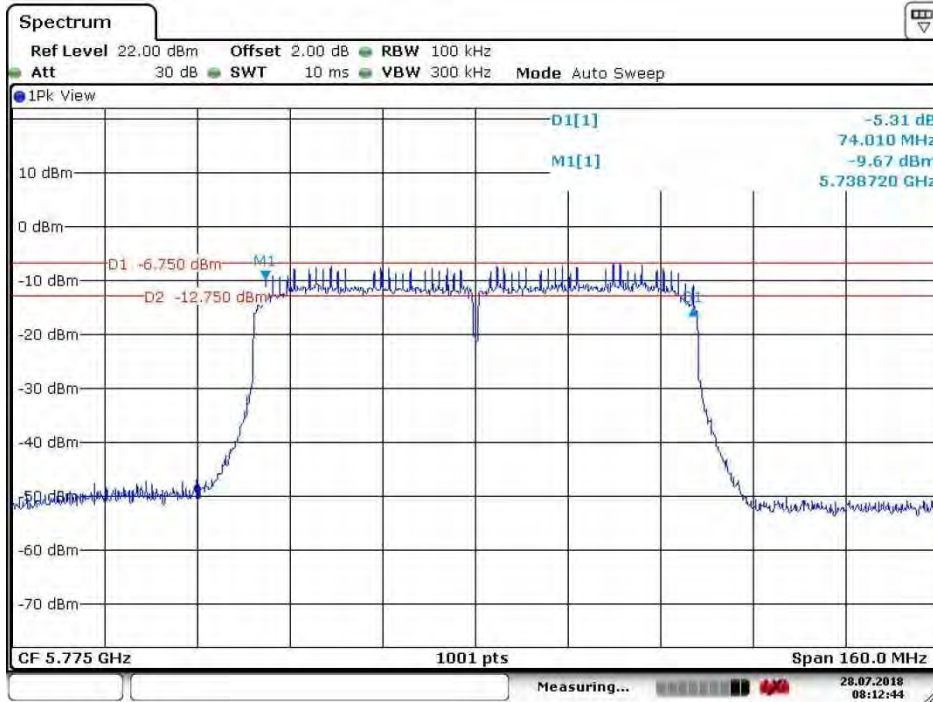
Date: 28 JUL 2018 08:10:59



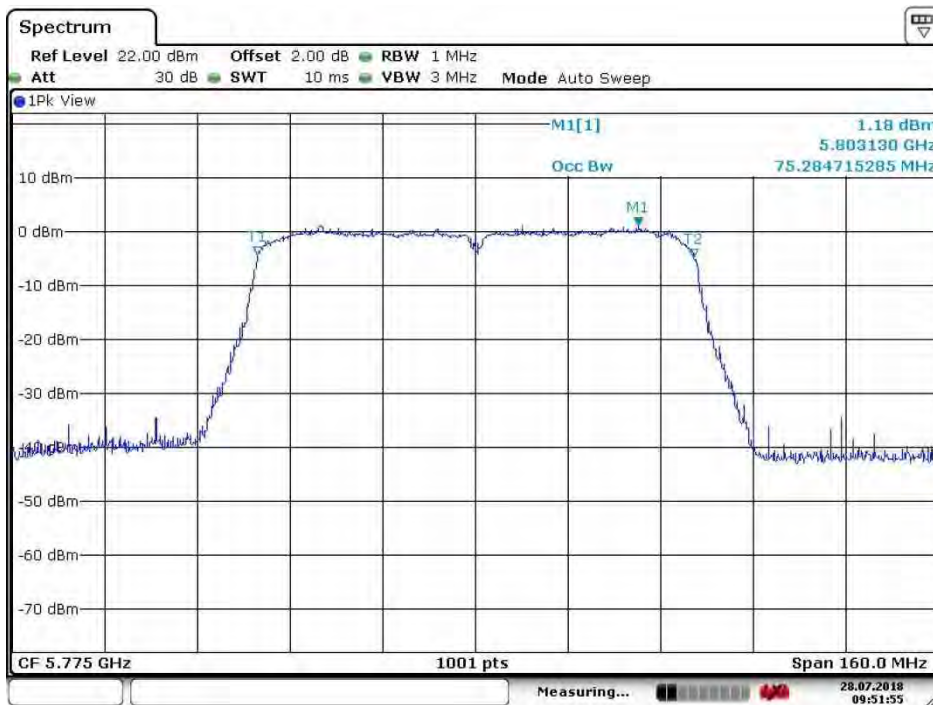
Date: 28 JUL 2018 09:34:53



5.5.1.3.11 11AC80\_155 ANT 1



Date: 28 JUL 2018 08:12:44

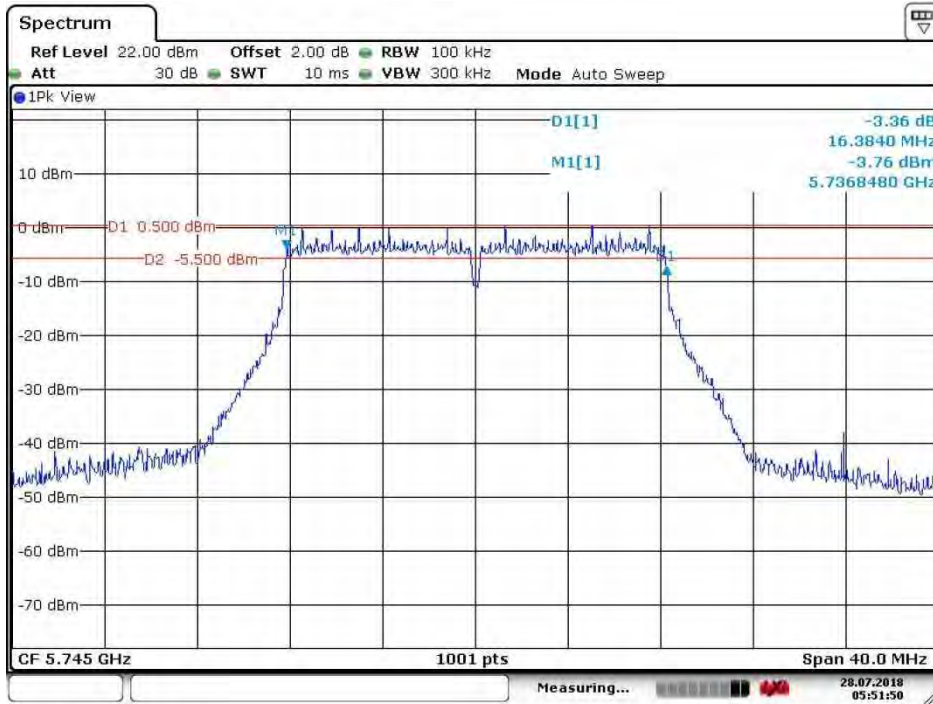


Date: 28 JUL 2018 09:51:56

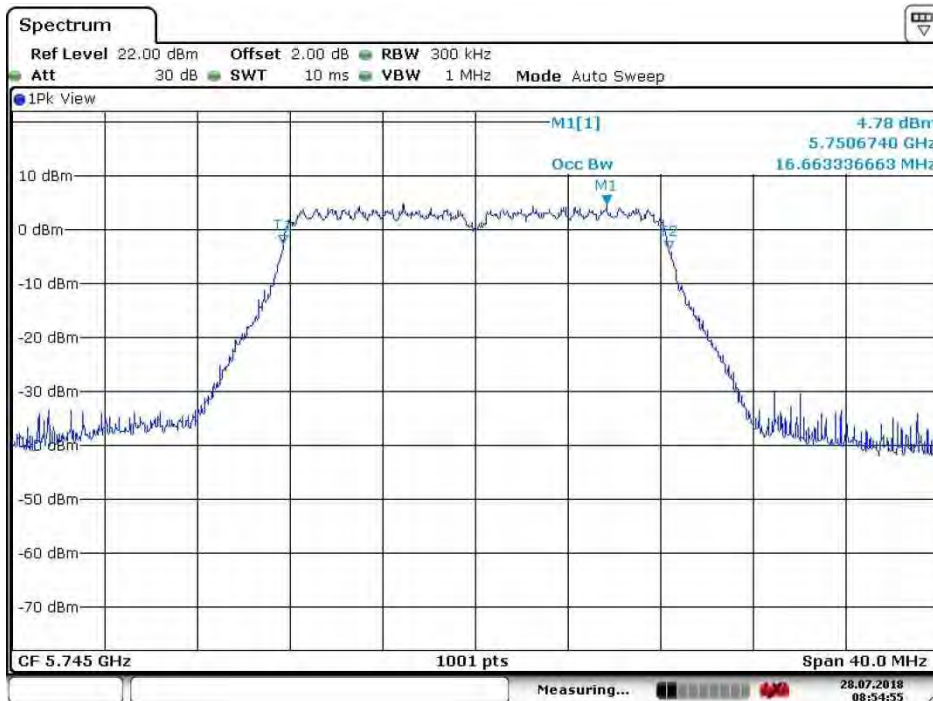


### 5.5.1.4 MIMO\_ANT 2

#### 5.5.1.4.1 11A20\_149 ANT 2



Date: 28 JUL 2018 05:51:51

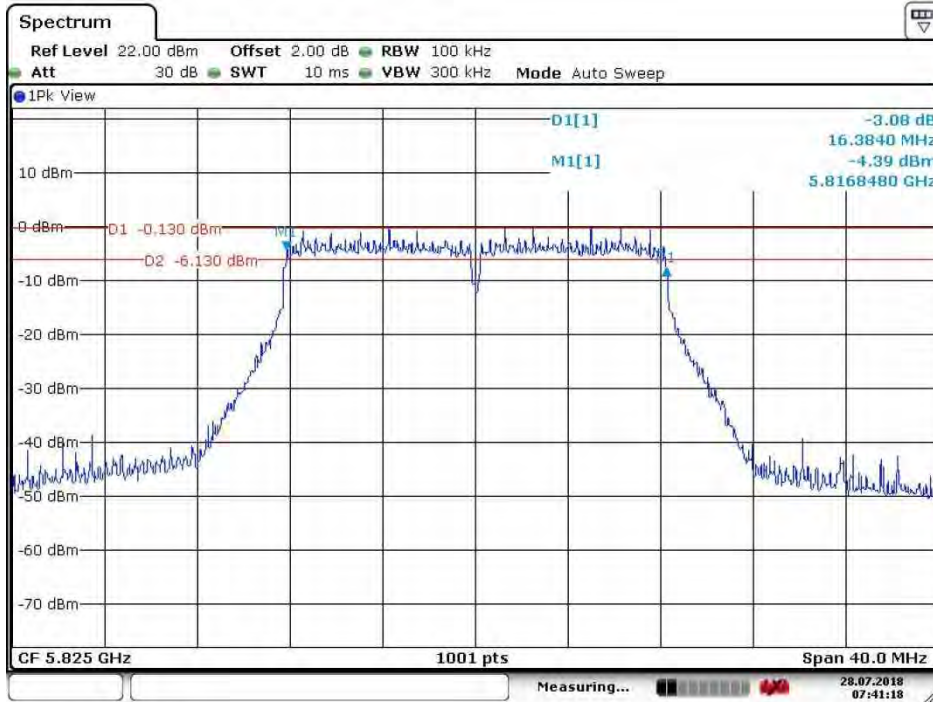


Date: 28 JUL 2018 08:54:55

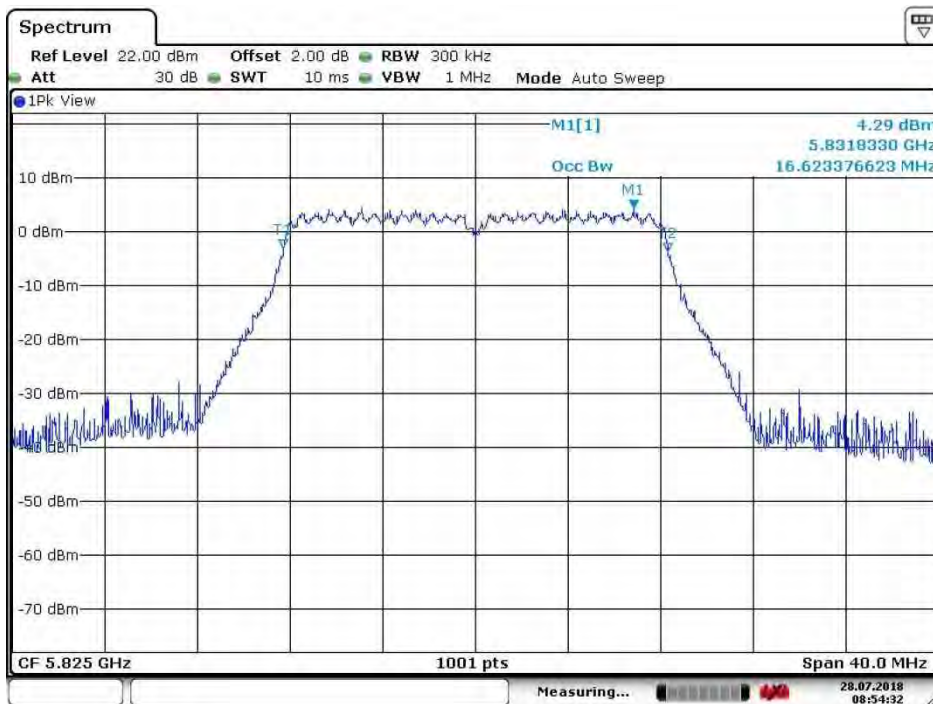




5.5.1.4.2 11A20\_165 ANT 2



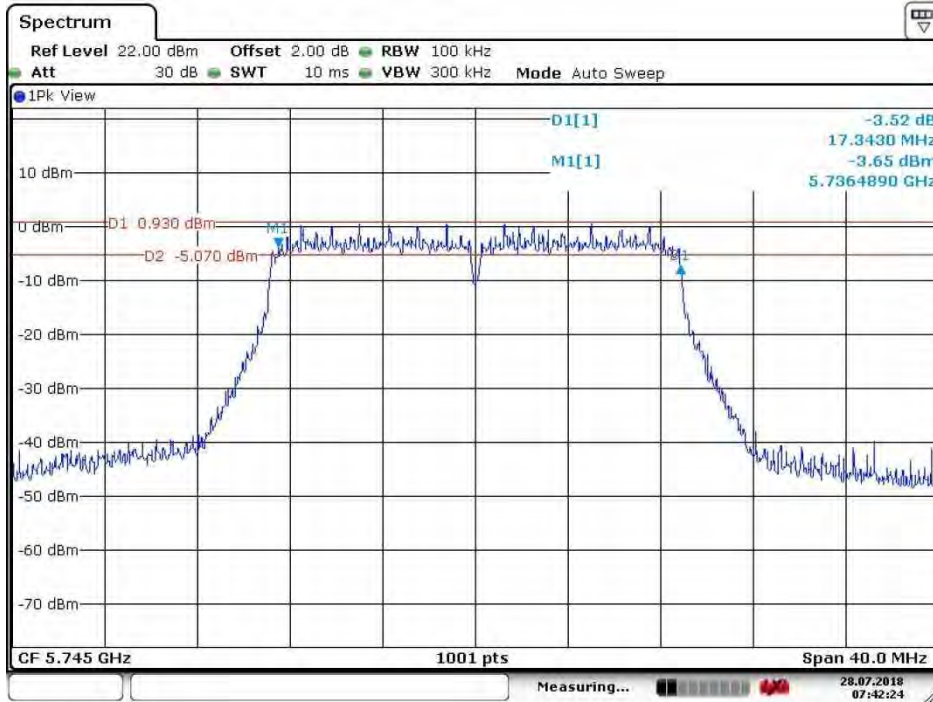
Date: 28 JUL 2018 07:41:18



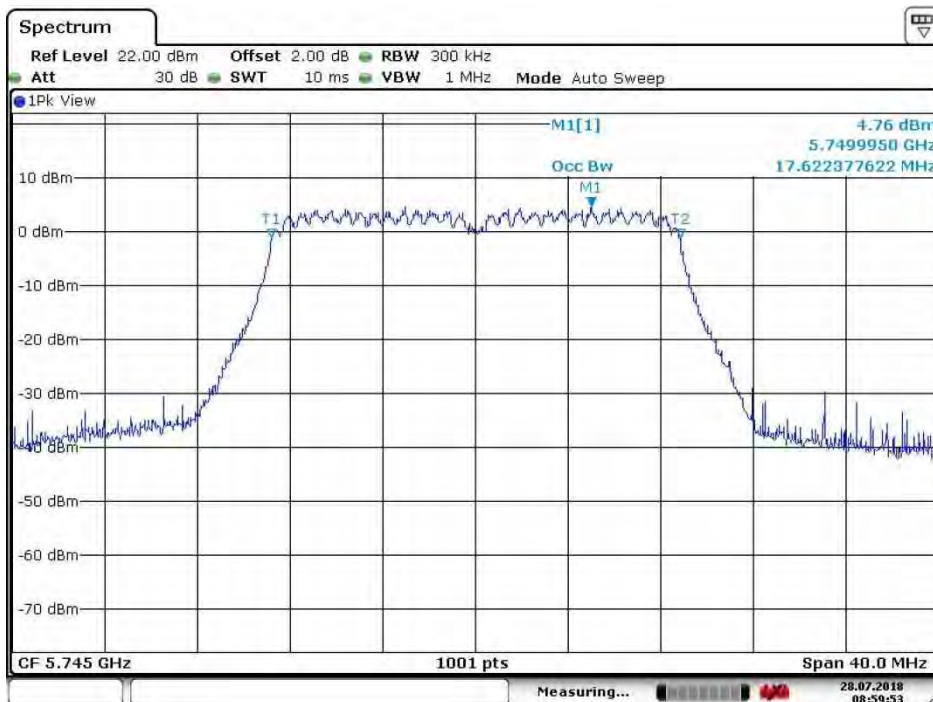
Date: 28 JUL 2018 08:54:32



5.5.1.4.3 11N20\_149 ANT 2



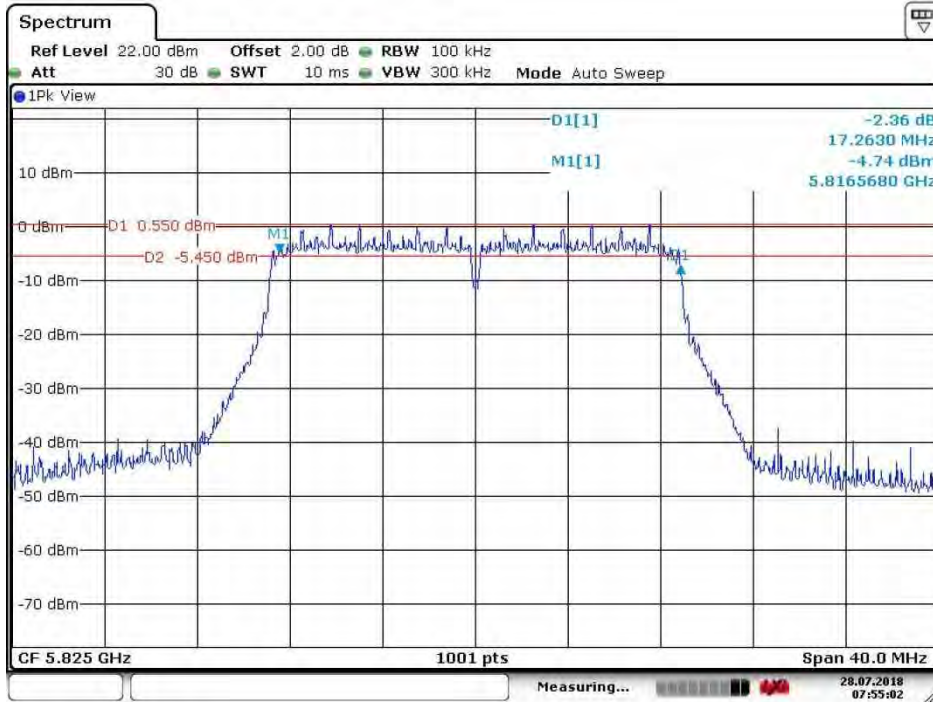
Date: 28 JUL 2018 07:42:24



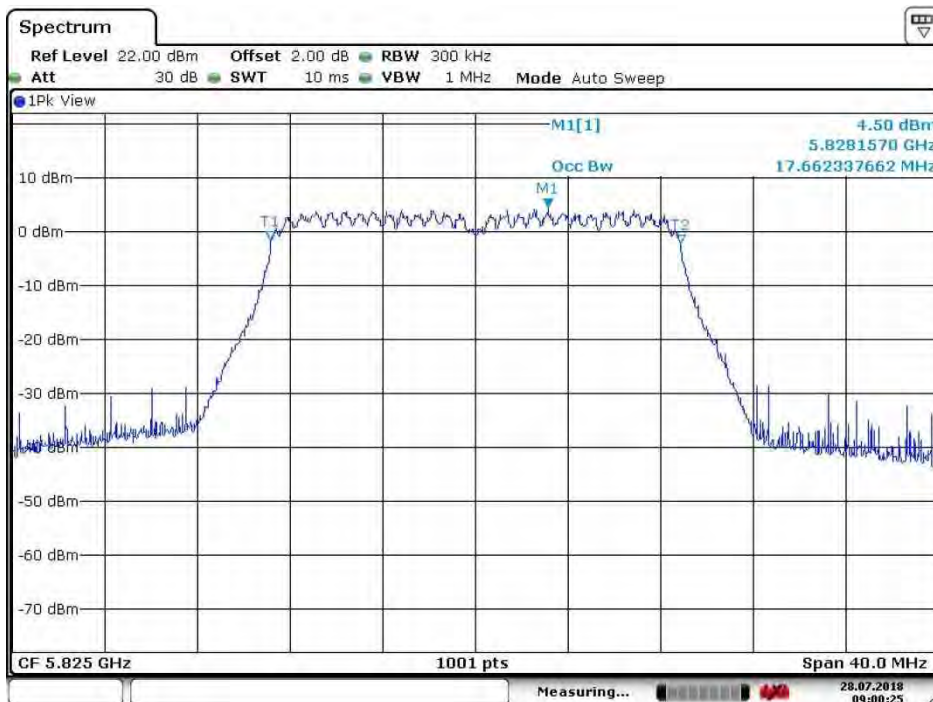
Date: 28 JUL 2018 08:59:53



5.5.1.4.4 11N20\_165 ANT 2



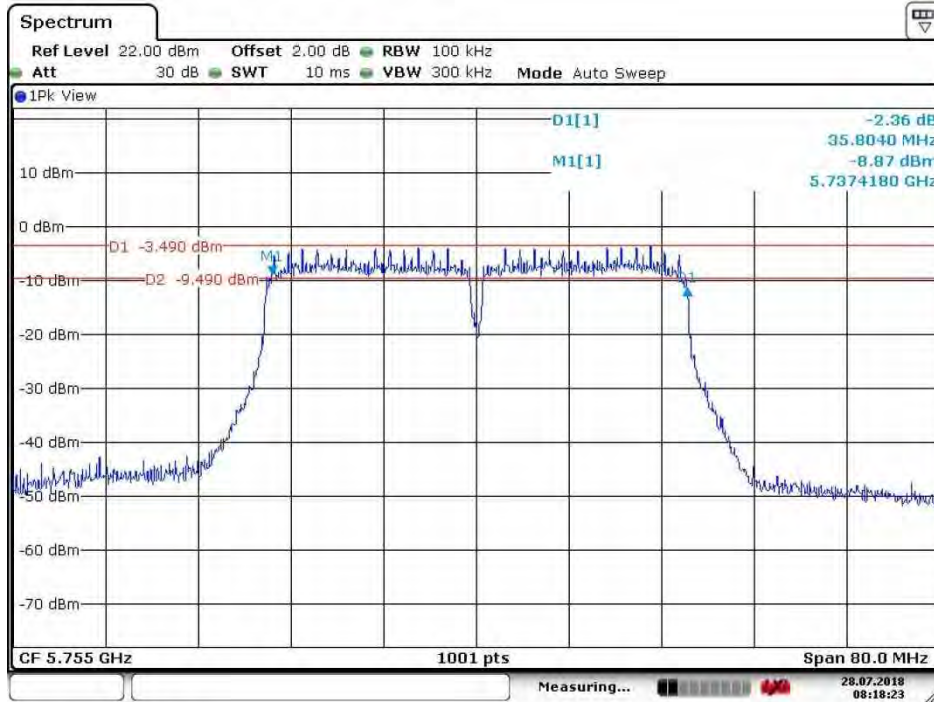
Date: 28 JUL 2018 07:55:02



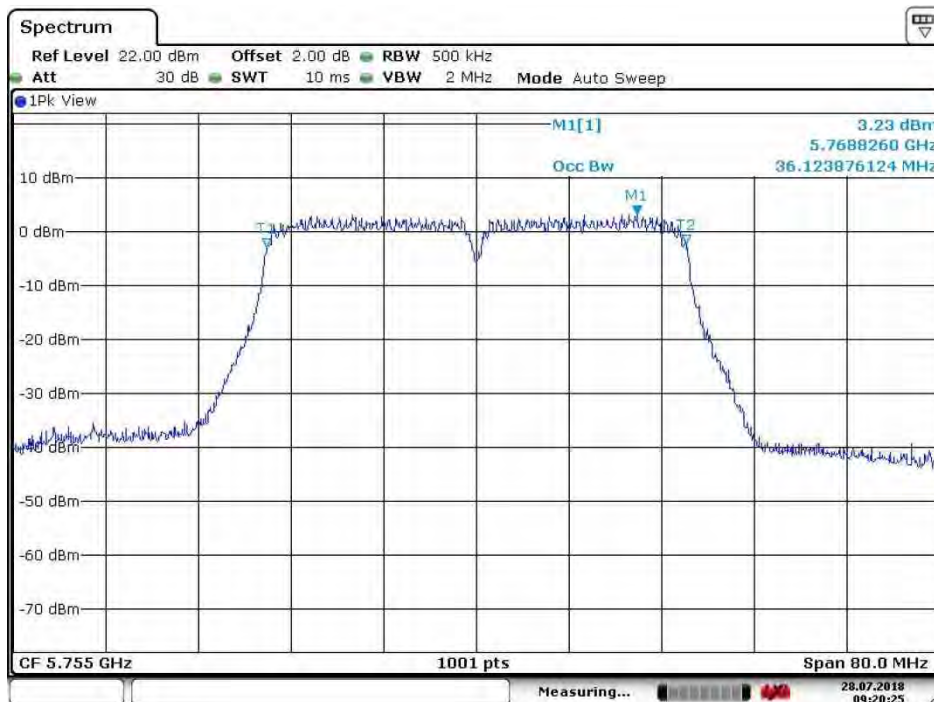
Date: 28 JUL 2018 09:00:26



5.5.1.4.5 11N40\_151 ANT 2



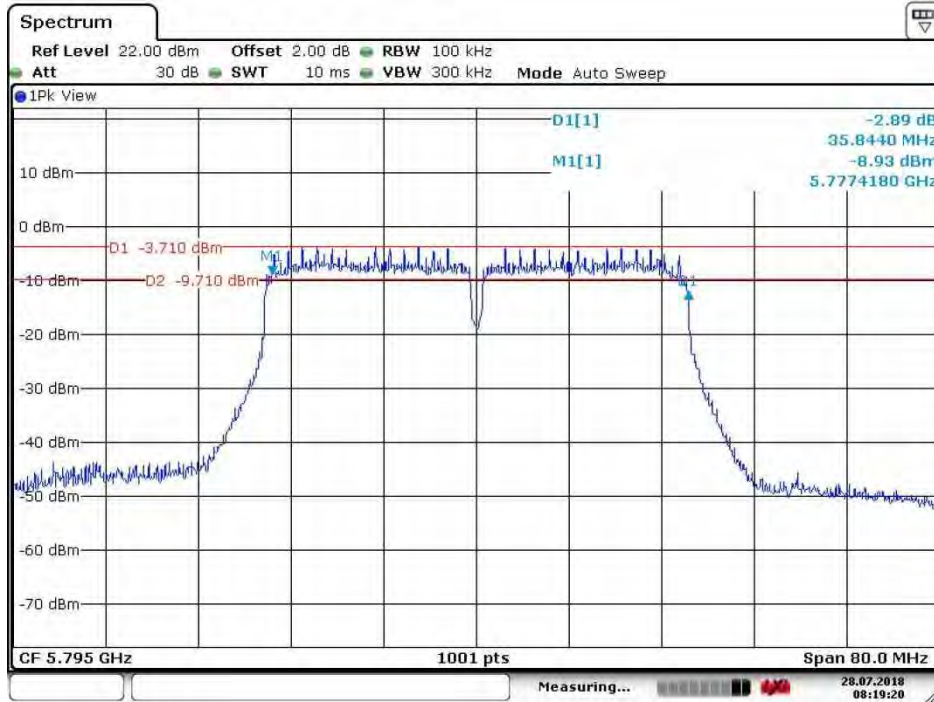
Date: 28 JUL 2018 08:18:23



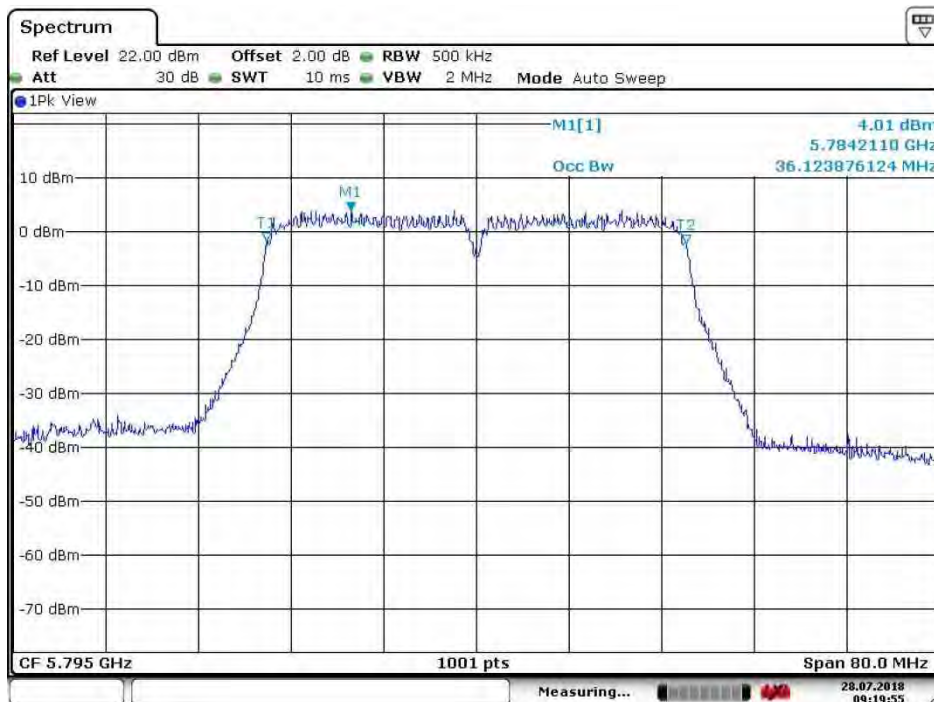
Date: 28 JUL 2018 09:20:25



5.5.1.4.6 11N40\_159 ANT 2



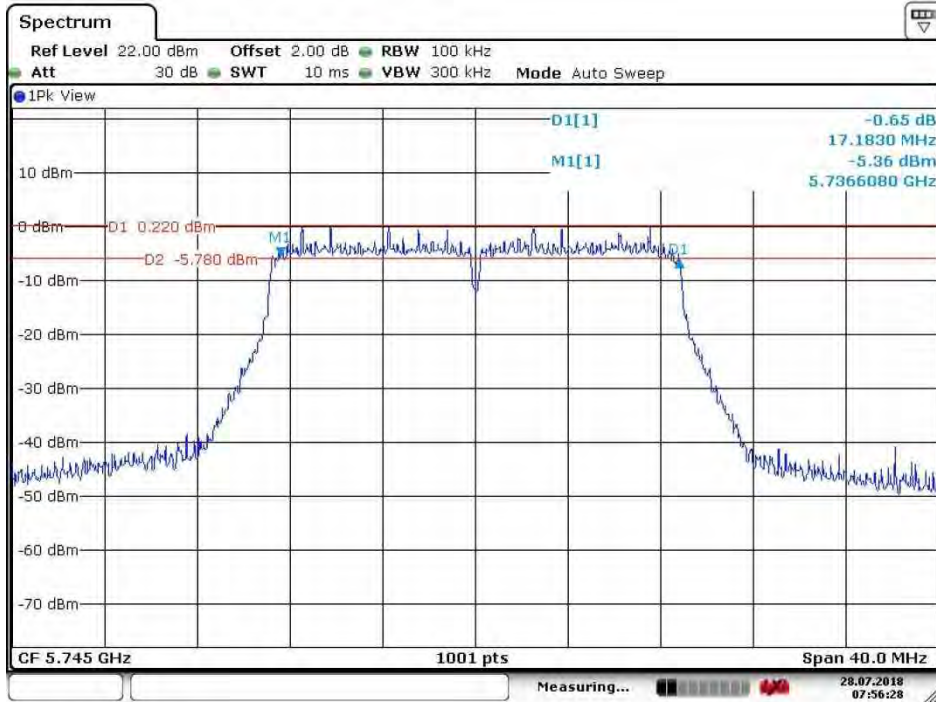
Date: 28 JUL 2018 08:19:21



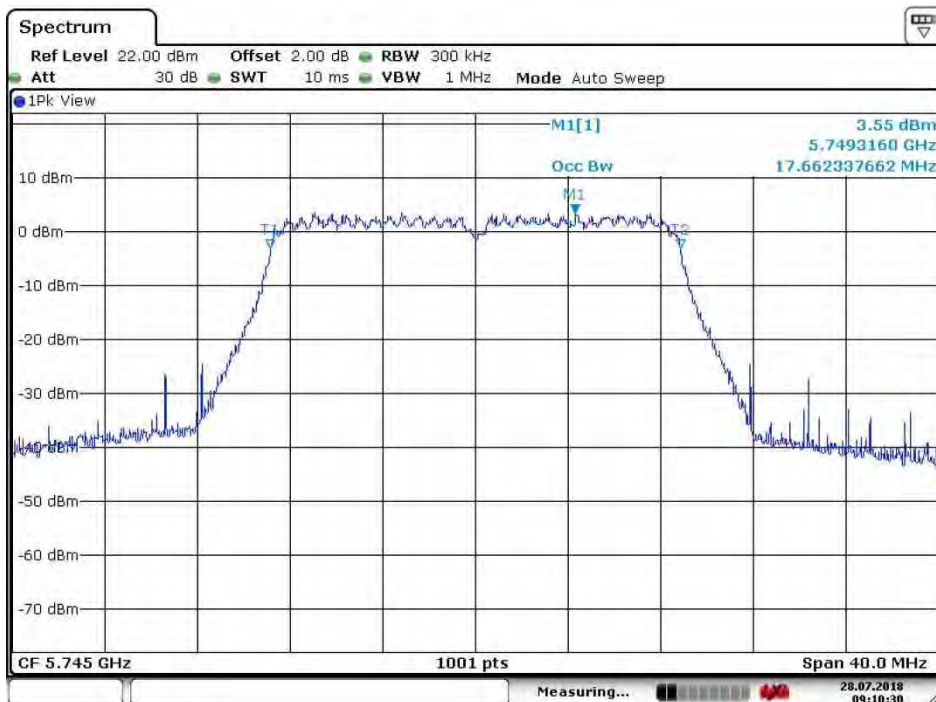
Date: 28 JUL 2018 09:19:55



5.5.1.4.7 11AC20\_149 ANT 2



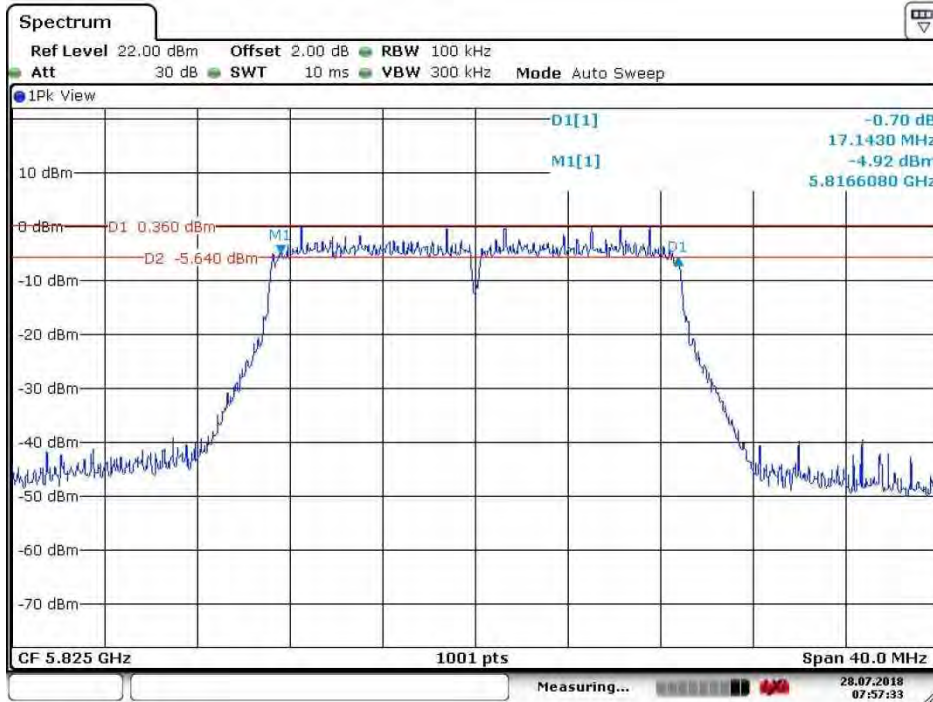
Date: 28 JUL 2018 07:56:29



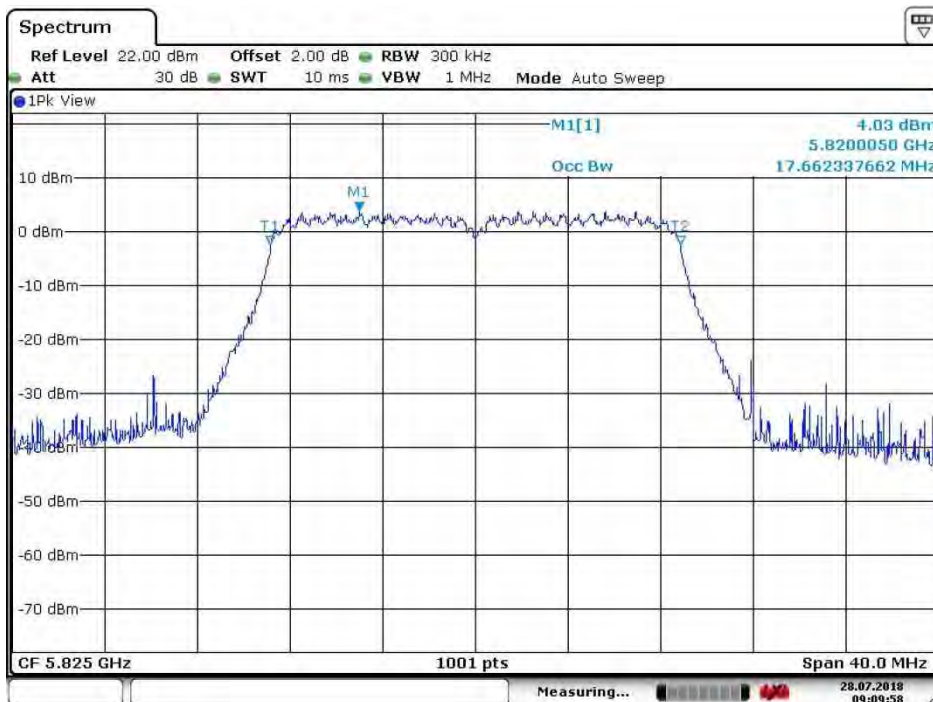
Date: 28 JUL 2018 09:10:30



5.5.1.4.8 11AC20\_165 ANT 2



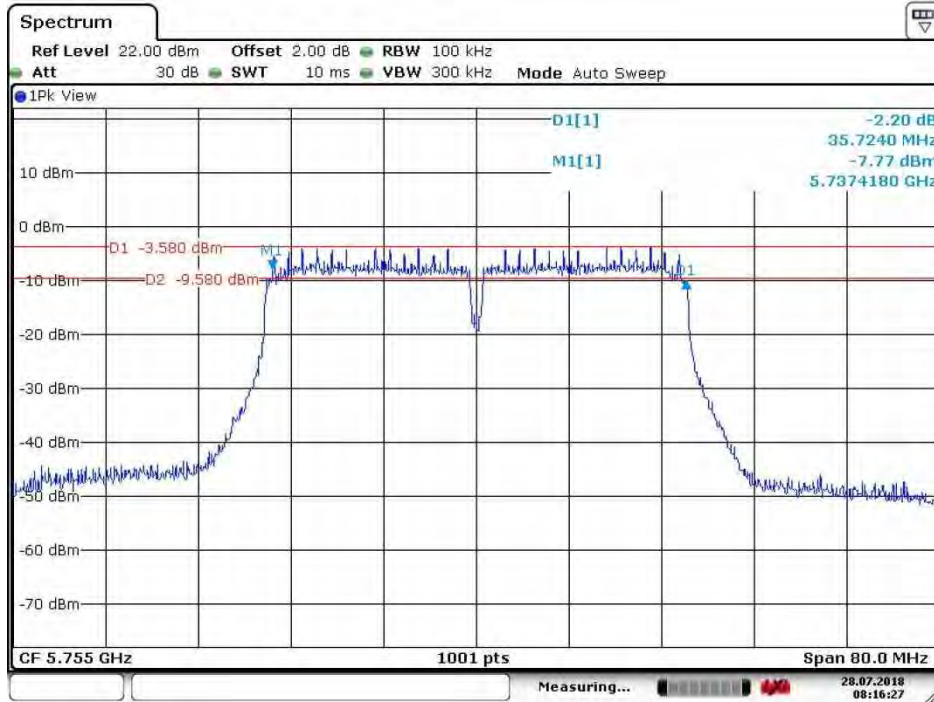
Date: 28 JUL 2018 07:57:33



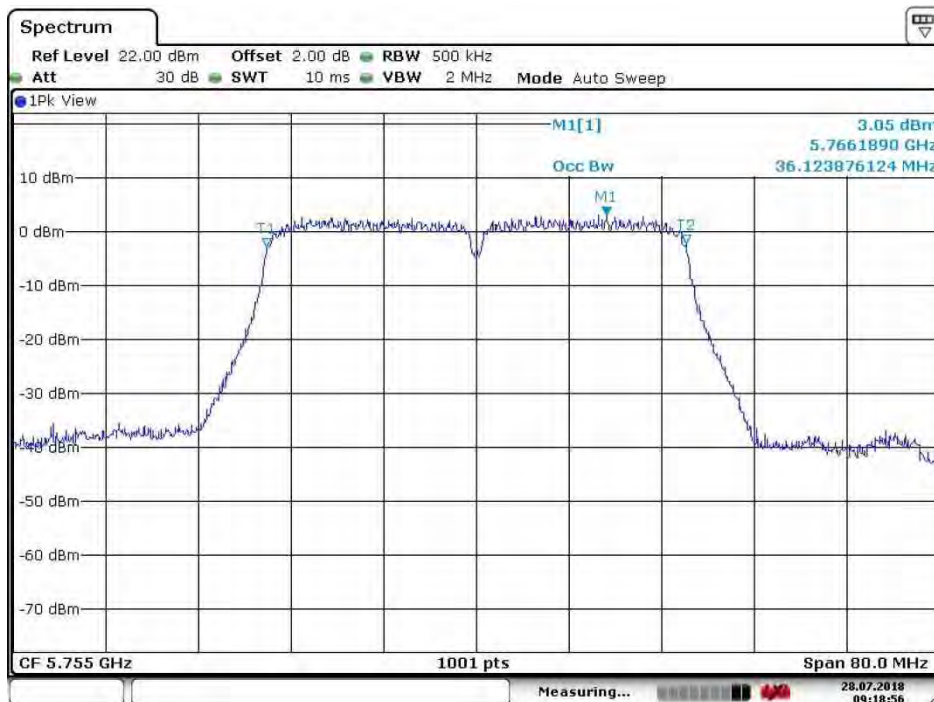
Date: 28 JUL 2018 09:09:59



5.5.1.4.9 11AC40\_151 ANT 2



Date: 28 JUL 2018 08:16:27

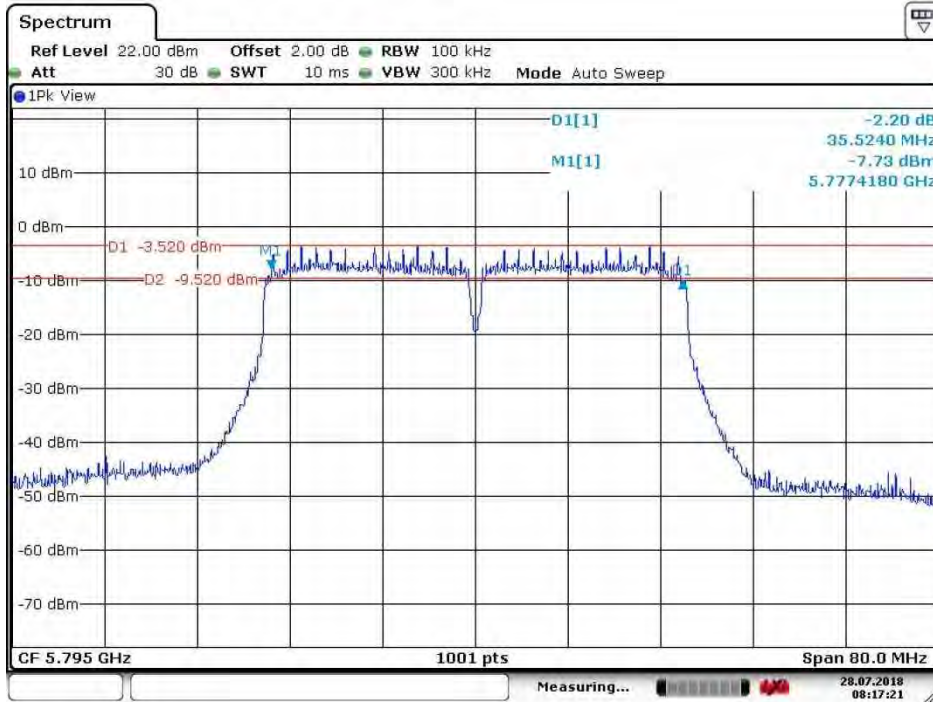


Date: 28 JUL 2018 09:18:56

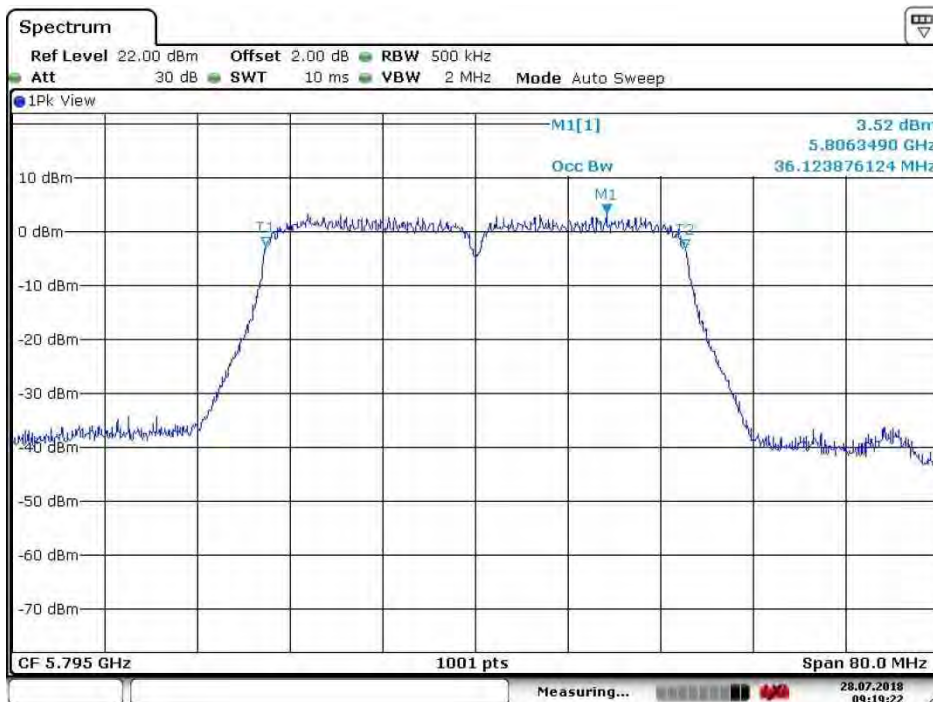




5.5.1.4.10 11AC40\_159 ANT 2



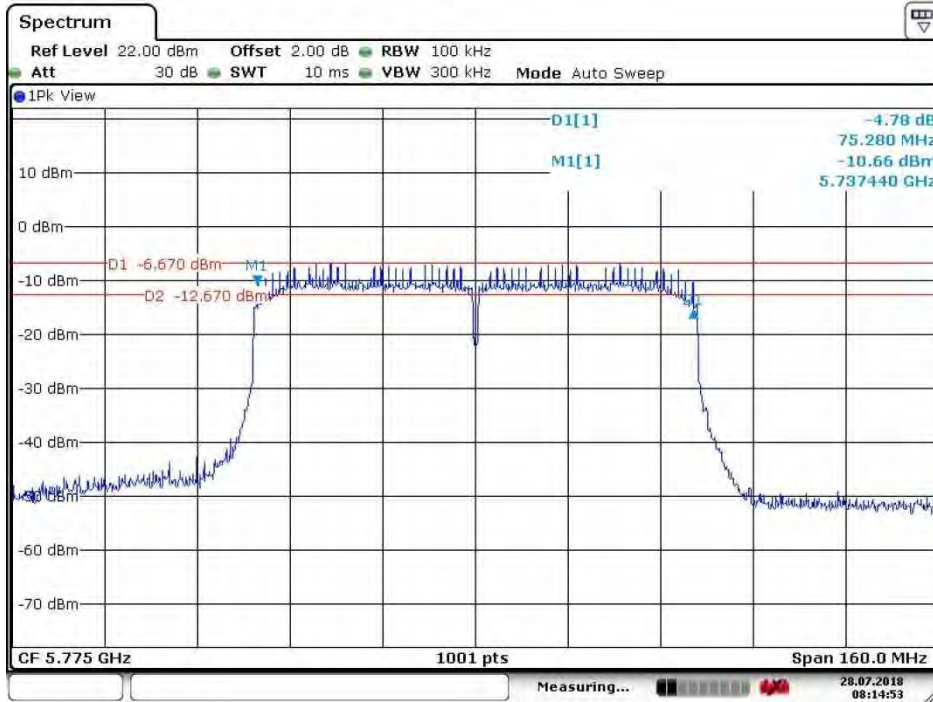
Date: 28 JUL 2018 08:17:22



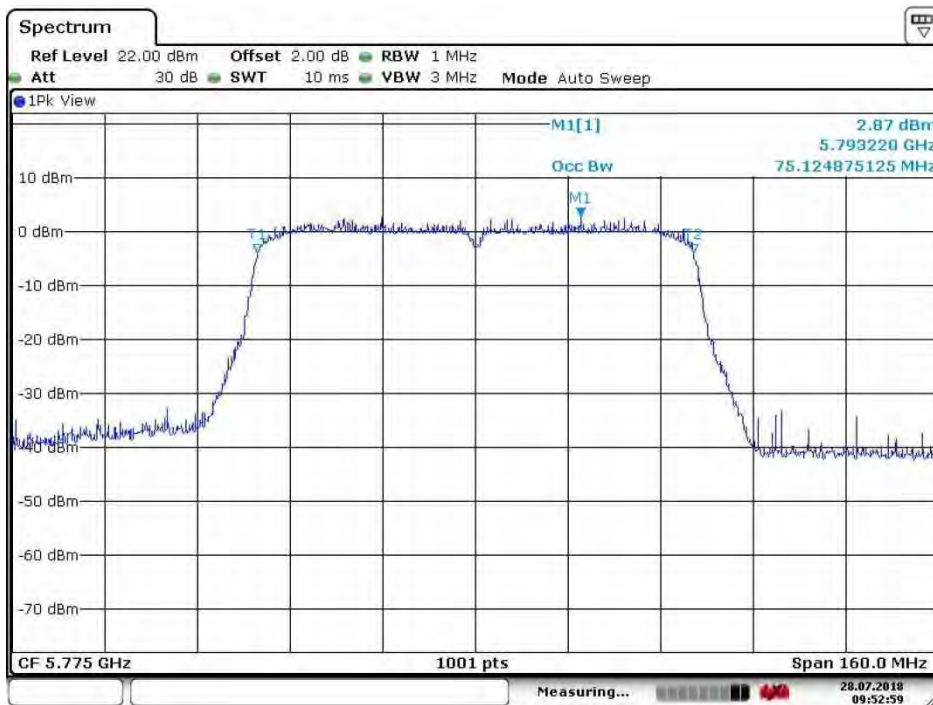
Date: 28 JUL 2018 09:19:22



5.5.1.4.11 11AC80\_155 ANT 2

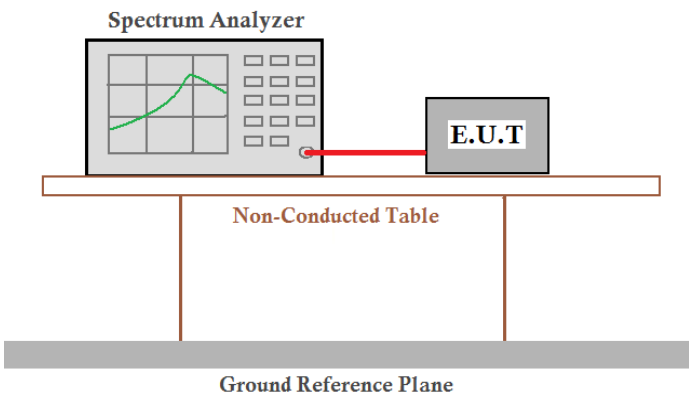


Date: 28 JUL 2018 08:14:53



Date: 28 JUL 2018 09:53:00

## 5.6 Power Spectral Density

Test Requirement:	47 CFR Part 15 Section 15.407(a)	
Test Method:	ANSI C63.10: 2013	
Test Setup:		
Test Instruments:	Refer to section 5.10 for details	
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates	
Final Test Mode:	Through Pre-scan, find the 6Mbps of rate is the worst case of 802.11a; MCS0 of rate is the worst case of 802.11n(HT20); MCS0 of rate is the worst case of 802.11n(HT40); MCS0 of rate is the worst case of 802.11ac(HT20); MCS0 of rate is the worst case of 802.11ac(HT40); MCS0 of rate is the worst case of 802.11ac(HT80), MCS0 of rate is the worst case of 802.11ac(HT160) Only the worst case is recorded in the report.	
Limit:	Frequency Band	Limit
	5150-5250MHz	The power spectral density less than 11dBm/1MHz
	5250-5350MHz	The power spectral density less than 11dBm/1MHz
	5470-5725MHz	The power spectral density less than 11dBm/1MHz
Test Results:	Pass	

## Measurement Data:



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SISO_ANT1				
Test Mode	Test Channel	Frequency [MHz]	Meas. Level (Cond.) [dBm/MHz]	Verdict
11A20_SISO	36	5180	7.81	PASS
	40	5200	7.43	PASS
	48	5240	7.05	PASS
	52	5260	6.77	PASS
	56	5280	6.85	PASS
	64	5320	7.42	PASS
	100	5500	1.46	PASS
	120	5600	7.85	PASS
	140	5700	1.57	PASS
	149	5745	0.51	PASS
	157	5785	0.44	PASS
	165	5825	1.13	PASS
11N20_SISO	36	5180	7.33	PASS
	40	5200	7.16	PASS
	48	5240	6.73	PASS
	52	5260	6.58	PASS
	56	5280	6.77	PASS
	64	5320	6.87	PASS
	100	5500	0.80	PASS
	120	5600	7.77	PASS
	140	5700	1.42	PASS
	149	5745	0.10	PASS
	157	5785	0.53	PASS
	165	5825	0.89	PASS
11N40_SISO	38	5190	3.42	PASS
	46	5230	2.86	PASS
	54	5270	2.56	PASS
	62	5310	2.75	PASS
	102	5510	-3.94	PASS
	142	5710	2.52	PASS
	134	5670	2.45	PASS

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11AC20_SISO	151	5755	-3.44	PASS
	159	5795	-3.24	PASS
	36	5180	7.28	PASS
	40	5200	7.34	PASS
	48	5240	6.88	PASS
	52	5260	6.74	PASS
	56	5280	6.60	PASS
	64	5320	7.10	PASS
	100	5500	0.93	PASS
	120	5600	7.69	PASS
	140	5700	1.43	PASS
	149	5745	0.56	PASS
	157	5785	0.49	PASS
	165	5825	0.91	PASS
	11AC40_SISO	38	5190	3.19
46		5230	2.69	PASS
54		5270	2.41	PASS
62		5310	2.99	PASS
102		5510	-3.79	PASS
142		5710	3.92	PASS
134		5670	2.70	PASS
151		5755	-3.39	PASS
159		5795	-2.87	PASS
11AC80_SISO	42	5210	0.01	PASS
	58	5290	-7.18	PASS
	106	5530	-6.95	PASS
	138	5690	-1.38	PASS
	155	5775	-13.22	PASS



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<b>SISO_ANT2</b>				
<b>Test Mode</b>	<b>Test Channel</b>	<b>Frequency [MHz]</b>	<b>Meas. Level (Cond.) [dBm/MHz]</b>	<b>Verdict</b>
11A20_SISO	36	5180	6.10	PASS
	40	5200	5.92	PASS
	48	5240	5.97	PASS
	52	5260	6.15	PASS
	56	5280	6.70	PASS
	64	5320	6.24	PASS
	100	5500	1.65	PASS
	120	5600	6.87	PASS
	140	5700	1.28	PASS
	149	5745	0.41	PASS
	157	5785	0.48	PASS
	165	5825	0.52	PASS
11N20_SISO	36	5180	5.87	PASS
	40	5200	5.95	PASS
	48	5240	5.76	PASS
	52	5260	6.49	PASS
	56	5280	6.18	PASS
	64	5320	5.74	PASS
	100	5500	1.06	PASS
	120	5600	6.27	PASS
	140	5700	1.20	PASS
	149	5745	0.26	PASS
	157	5785	0.44	PASS
	165	5825	0.17	PASS
11N40_SISO	38	5190	1.04	PASS
	46	5230	1.24	PASS
	54	5270	1.74	PASS
	62	5310	1.57	PASS
	102	5510	-3.86	PASS
	142	5710	2.09	PASS

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	134	5670	2.15	PASS	
	151	5755	-3.56	PASS	
	159	5795	-3.64	PASS	
11AC20_SISO	36	5180	5.77	PASS	
	40	5200	5.68	PASS	
	48	5240	5.81	PASS	
	52	5260	6.10	PASS	
	56	5280	6.96	PASS	
	64	5320	6.01	PASS	
	100	5500	1.25	PASS	
	120	5600	6.78	PASS	
	140	5700	1.43	PASS	
	149	5745	0.59	PASS	
	157	5785	0.56	PASS	
	165	5825	0.24	PASS	
	11AC40_SISO	38	5190	0.85	PASS
		46	5230	0.74	PASS
54		5270	1.19	PASS	
62		5310	1.08	PASS	
102		5510	-3.79	PASS	
142		5710	2.31	PASS	
134		5670	1.92	PASS	
151		5755	-3.27	PASS	
159		5795	-3.98	PASS	
11AC80_SISO	42	5210	-7.82	PASS	
	58	5290	-7.21	PASS	
	106	5530	-6.45	PASS	
	138	5690	-1.12	PASS	
	155	5775	-7.14	PASS	



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<b>MIMO_ANT1</b>				
<b>Test Mode</b>	<b>Test Channel</b>	<b>Frequency [MHz]</b>	<b>Meas. Level (Cond.) [dBm/MHz]</b>	<b>Verdict</b>
11A20_CDD	36	5180	1.72	PASS
	48	5240	7.13	PASS
	52	5260	6.97	PASS
	64	5320	1.37	PASS
	100	5500	1.59	PASS
	140	5700	1.81	PASS
	149	5745	1.01	PASS
	165	5825	1.68	PASS
11N20_MIMO	36	5180	1.02	PASS
	48	5240	6.56	PASS
	52	5260	6.41	PASS
	64	5320	0.29	PASS
	100	5500	0.49	PASS
	140	5700	1.51	PASS
	149	5745	0.44	PASS
	165	5825	1.65	PASS
11N40_MIMO	38	5190	-3.54	PASS
	46	5230	3.02	PASS
	54	5270	2.13	PASS
	62	5310	-3.93	PASS
	102	5510	-3.71	PASS
	134	5670	2.84	PASS
	151	5755	-3.26	PASS
	159	5795	-2.67	PASS
11AC20_MIMO	36	5180	1.04	PASS
	48	5240	6.97	PASS
	52	5260	6.68	PASS
	64	5320	0.55	PASS
	100	5500	1.08	PASS
	140	5700	1.31	PASS
	149	5745	0.55	PASS

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	157	5795	-2.70	PASS	
	165	5825	1.68	PASS	
11AC40_MIMO	38	5190	-3.52	PASS	
	46	5230	2.55	PASS	
	54	5270	2.94	PASS	
	62	5310	-3.70	PASS	
	102	5510	-3.68	PASS	
	134	5670	2.79	PASS	
	151	5755	-3.74	PASS	
	159	5795	-3.35	PASS	
	11AC80_MIMO	42	5210	-6.59	PASS
		58	5290	-6.79	PASS
106		5530	-6.62	PASS	
138		5690	-1.42	PASS	
155		5775	-6.89	PASS	



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<b>MIMO_ANT2</b>				
<b>Test Mode</b>	<b>Test Channel</b>	<b>Frequency [MHz]</b>	<b>Meas. Level (Cond.) [dBm/MHz]</b>	<b>Verdict</b>
11A20_CDD	36	5180	1.17	PASS
	48	5240	6.66	PASS
	52	5260	7.48	PASS
	64	5320	1.11	PASS
	100	5500	1.48	PASS
	140	5700	1.26	PASS
	149	5745	0.90	PASS
	165	5825	1.09	PASS
11N20_MIMO	36	5180	1.08	PASS
	48	5240	7.03	PASS
	52	5260	7.42	PASS
	64	5320	1.53	PASS
	100	5500	2.03	PASS
	140	5700	2.12	PASS
	149	5745	1.26	PASS
	165	5825	1.28	PASS
11N40_MIMO	38	5190	-3.39	PASS
	46	5230	3.44	PASS
	54	5270	2.37	PASS
	62	5310	-4.09	PASS
	102	5510	-2.97	PASS
	134	5670	3.40	PASS
	151	5755	-2.96	PASS
	159	5795	-2.49	PASS
11AC20_MIMO	36	5180	0.45	PASS
	48	5240	6.72	PASS
	52	5260	6.89	PASS
	64	5320	0.84	PASS
	100	5500	1.39	PASS
	140	5700	0.97	PASS
	149	5745	0.71	PASS

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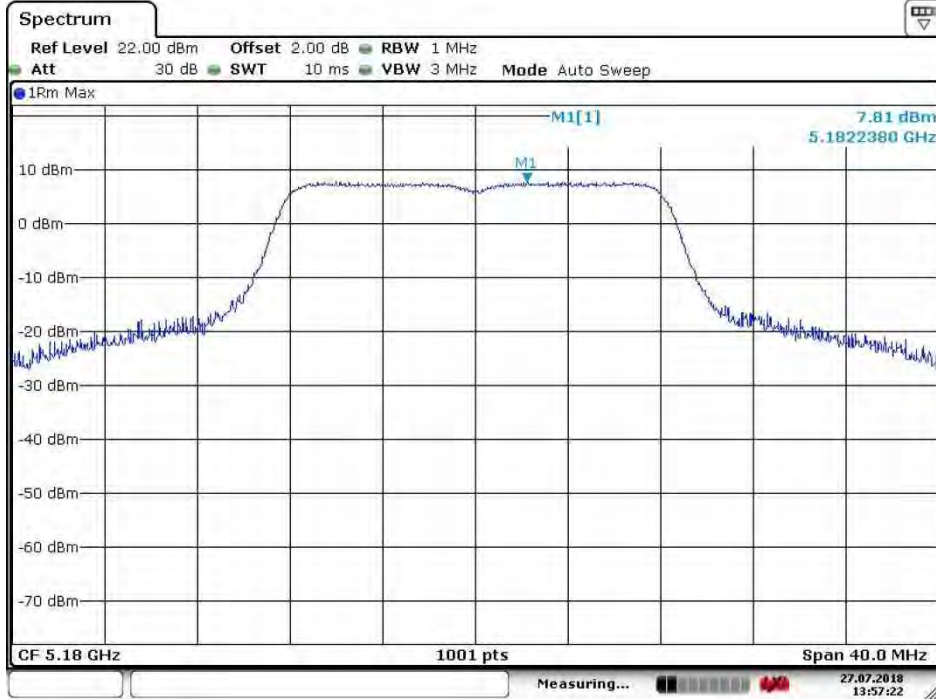
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	165	5825	1.18	PASS
11AC40_MIMO	38	5190	-4.01	PASS
	46	5230	2.71	PASS
	54	5270	1.76	PASS
	62	5310	-5.10	PASS
	102	5510	-4.55	PASS
	134	5670	3.17	PASS
	151	5755	-2.93	PASS
	159	5795	-2.68	PASS
11AC80_MIMO	42	5210	-8.16	PASS
	58	5290	-7.62	PASS
	106	5530	-7.45	PASS
	138	5690	-0.60	PASS
	155	5775	-6.39	PASS



Test plot as follows:  
SISO\_ANT1

Test mode:	802.11a	Frequency(MHz):	5180
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Date: 27.JUL.2018 13:57:22

Test mode:	802.11a	Frequency(MHz):	5200
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Date: 27.JUL.2018 13:58:11



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Test mode:	802.11a	Frequency(MHz):	5240
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Date: 27.JUL.2018 13:58:35

Test mode:	802.11a	Frequency(MHz):	5260
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Date: 27.JUL.2018 13:58:58